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AMSTRAD

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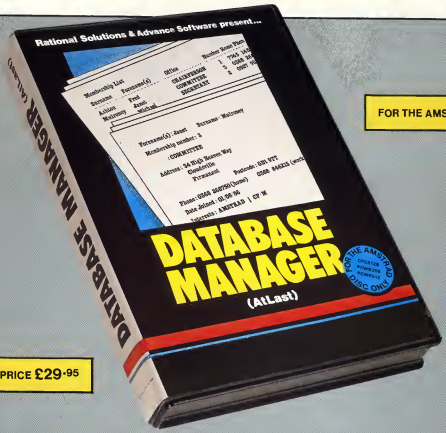

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OPENING MENU

OPENING MENU

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78 POSTSCRIPT
A generous selection of your letters.

Create Superb Graphics On Your PCW 8256/8512

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GOLDEN OPPORTUNITY

This is a very exciting time to become involved with a young magazine. When it's finding its feet and starting to establish a name for itself, it gives any editor the chance to get on a 'winning team'. From the letters I've read since starting on 8000 Plus, it seems we've hit the balance about right for most of you. There are always areas, though, which some people think we've over-emphasised, and others which could do with more coverage.

Two new series start in this issue, both as a result of your ideas. John Hughes' BASIC tutorials aim to get you started if you are curious about programming but are nervous about its complexities. A little BASIC knowledge can work wonders. You only have to see our Listings section to appreciate that.

'A Case in Point' shows just what uses the good old PCW can be put to, and hopes to concentrate on unusual or unexpected applications of the 8000 series. Why not try your hand at an article along these lines? You may have noticed that this month's 'victim' is not as 'true to life' as most. It should give you some guidelines of the kind of thing we're after, though.

As for those credentials that the Opening Menu promised, well I'm over thirty, over six foot and overworked, have owned an Amstrad computer since before the CPC 464 was released and live on a hill a long way from Somerton.

Simon Williams

If you read any of the 'general' micro magazines, you could easily reach the conclusion that the whole world, and particularly the USA, knows of only one type of computer. The ubiquitous IBM PC is the only machine the Americans are interested in providing software for.

CP/M, which used to be *the* operating system for business micros has lost it's appeal on the other side of the Atlantic. The only machines which can re-kindle interest in CP/M and make it worthwhile for software houses to write new software are the PCWs. And where have the vast majority of these machines been sold? – in the good old UK.

If ever there was an opportunity for British software houses to excel, with very little competition from their American colleagues, surely it must be in providing software for the 8000 series. What do we see, though? The vast majority of software used on PCWs (with the exception of LocoScript, which has an in-built advantage) is old and comes from the USA.

None of the techniques which have made the IBM PC so much more convenient to use have so far been adopted on the PCWs. There is no fundamental reason why pull-down menus, pop-up calculators and the like can't be implemented under CP/M, especially on a machine with at least 112K of RAM disc. Yet we're still forced to press [ALT][KD] **to save a document in WordStar, or** /ODP **to print a spreadsheet in SuperCalc 2 (neither of which are particularly bad examples of their kind).**

The trouble is, unless things start to be done soon, whatever advantage we Brits have in this area may be lost for good.

DON'T PANIC!

Those who took advantage of our special offer of a copy of **The Hitchhiker's Guide to the Galaxy** may have noticed that it appears to have been programmed by the Sirius Cybernetics Corporation. If you type HITCHHIK as instructed on the sleeve notes, the text of the adventure scrolls over the screen like a frenzied lemming.

If you don't like it this way, there is a simple solution. Instead of typing the program's name, type SUBMIT PROFILE [RETURN]. The screen will then be set up as it should and the game will proceed in an altogether more orderly fashion.

Astracom revisited

In our comparative review of modems last month, a number of features of the Astracom modem were incorrectly detailed. The VAT exclusive price is in fact £145, but this does not include the Kiwichat software. The latest version of this software does take advantage of the features of the modem, such as its auto-scanning of the incoming signal.

Astracom applied for BT approval some months ago and expects a result by the time you read this. In the light of these corrections, we'd like to withdraw our conclusion that the Astrocom modem was the least featured of the four units compared.

Baby Talk

Don't you just hate those anonymous front covers with slinky models draped over yet another example of the latest hi-tech? Well far be it for 8000 Plus to fall into the same trap. The slinky model on our front cover is none other than Zoe Anderson, heiress to the vast Future Publishing fortunes.

Taking after her father, she proved to be far more interested in the finer points of LocoScript than in the rattles and toys provided for her entertainment.

The JANUARY issue of 8000 Plus is due in the shops on THURSDAY, DECEMBER 11th. Your newsagent is just dying for a regular order.

If you can't beat 'em, buy 'em!

MicroPro Inc, the American creators of the WordStar word processor, have bought out their main rival, NewStar Inc for a hefty $3.1 million. The deal, which covers the NewWord 2 word processor and its newer cousin NewWord 3, takes in US and UK marketing rights and includes new positions within MicroPro for three top NewStar directors.

MicroPro's President, Leon Williams, says the move "will contribute to the long-term strengthening of WordStar." It is doubtful whether it will have the same effect on NewWord, as the products are due to be withdrawn in the States, pending some kind of combination with WordStar.

In the UK the situation seems more vague. MicroPro UK are a fully-owned subsidiary of MicroPro Inc in the states, and are currently awaiting further details from their parent company.

John Speller, MicroPro's marketing manager in the UK, says "I envisage something new coming out in the new year. I can't see that running WordStar and NewWord as parallel products makes marketing sense." Speller feels that part of the deal ensures continuing support for NewWord users from MicroPro.

Meanwhile, at NewStar UK (related to NewStar Inc only in name), the immediate impact seems to have been a surge in orders for NewWord. Nobody seems worried about continued support – Bill Peel, NewStar's MD, says confidently "Why should they worry? There are no bugs in it."

◀ A wistful William Peel of NewStar UK gazes down on MicroPro's John Speller ▼

Peel feels the new move is "the best endorsement we could have hoped for", even though his existing contract on NewWord runs out in February. Peel and Speller had a much publicised row at the Amstrad user show in October over whose product was the best. Consequently, Peel's first reaction when he heard of the take-over was to ring Speller and ask if it was an elaborate leg-pull! Speller says that relations are now "cordial", adding that "in business, these things happen". Don't they just!

Setting Forth on the high C's?

HISOFT

The programming languages Forth and C are gaining increasing popularity with computing experts on the PCWs and other microcomputers. Now various new versions of the languages are coming out from a number of suppliers. As programming languages, Forth and C are definitely for experts.

Hisoft (0525 718181) have released Hisoft Forth at £19.95. This is a Forth compiler which includes an assembly language library to allow you to access the GSX graphics on the PCW. Included in the price is a screen editor and a Z80 assembler.

Also from Hisoft is "SeaChest" which is a C programming tutorial cunningly packaged as a chess game. £19.95 buys you the complete source code in C of a chess program and another game, Connect-4, together with an explanation of the techniques used to program them. You can play the games as bought, but to alter them you will need to fork out for Hisoft's C compiler too!

Finally, "MIX C" comes with a 450 page manual, and claims a full compiler which supports the standard Kernighan/Ritchie definition. It is available from two sources: Advantage (Dept. EP, 33 Malyns Close, Chinnor, Oxon OX9 4EW) are offering it at £39.50, while Analytical Engines (PO Box 35, Eastleigh, Hampshire SO5 5WU) lists it at £38.95 including VAT and postage. Extra packages are also on offer: a C assembly language toolkit for £10, and a C source text editor for £29.95.

Text Editing for Charity

A new editor/word processor package is now on sale which will directly benefit the charity War on Want.

The program is a full screen editor for the Amstrad PCW which incorporates a subset of the commands offered by the widely used "vi" editor with the operating system UNIX. The program's author, Dr. Robert Yorston, was driven to develop the software so as to be able to use the same editing commands at home as at work.

The editor, which doesn't have a name, is not primarily designed for word processing, but more for the preparation of ASCII files for programming and more complex text file operations. The software is "public domain", meaning it is free, but you will have to pay for the cost of transferring it onto a disc.

In addition to the copying fee, Dr. Yorston is asking purchasers to make a contribution of at least £10.00 to War on Want.

The program comes on a single disc complete with its source code (the program instructions themselves) and documentation. You can get hold of it by sending a cheque for £4.00 payable to 'R.M. Yorston', AND a cheque for a minimum of £10.00 payable to 'War on Want' to: R.M. Yorston, 147A Evesham Road, Headless Cross, Redditch, Worcs B97 4LJ.

Cheap memories

If you're thinking of upgrading the RAM disc (M:) in your 8256 to the full complement found in 8512s, you will be interested to know of new product prices from Analytical Engines Ltd of Hampshire.

The price of the set of 8 chips required to perform the upgrade is now only £19.95, including VAT, first class postage and an unlimited guarantee. Send for further details or orders to Analytical Engines Ltd., PO Box 35, Eastleigh, Hampshire SO5 5WU.

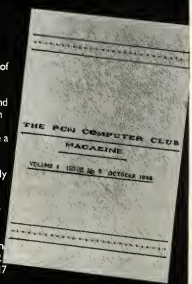
Make That Call

There are two people in the country who would be particularly delighted to receive a telephone call from you, as long as you don't speak to them! Ron Touw and Mark Gregory have both recently set up bulletin boards for any PCW users who own modems and can send and receive text down the line.

They are prepared to devote their phone lines to this purpose for a large portion of each day, and have on offer free software and lots of interesting snippets of information which you can copy to your own discs.

Ron's board is available on 0462 700893 from 10p.m. to 8a.m. each night, while Mark's modem will answer on 0902 788683 from 5.30 to 8.00 morning and evening. If you use a modem, you'll understand the following: both boards operate at 300/300 and 1200/75 baud, use 8 databits, 1 stop bit, no parity and support the MAIL232 Hex transfer protocol. What all this means is that they're pretty easy to get on with.

Another free plug for a PCW user group



Dear, dear, 8000 Plus seems to be turning into a free publicity service for PCW user groups. After we printed details of how to join the PCW Users Group in issue 2, news of more such ventures reaches us.

The PCW Computer Club is run for users from all over the world, and produces a monthly magazine which runs to 30 or so A4 pages, all for an annual sub of £7.50. They look to be a pretty friendly crowd, but openly admit that they can never aspire to 8000 Plus's high standards. Their only real failing seems to be their unrepentant use of the name 'Joyce' for the PCW – ugh. They'll get over it.

If you would like further information, or to join, write to Ron Morland at The PCW User Club, 12 Deneve Avenue, Poole, Dorset BH17 7LR.

New printers for old

An oft repeated complaint is that the standard PCW printer is too slow, too noisy or just doesn't produce a good enough print quality. Now Amstrad seem set to rectify this with a new printer for the machine, although as ever they are being very cagey about prices and dates.

Rumour has it that a fast, high quality dot matrix printer will shortly replace the existing model. This is essentially a souped-up version of the current PCW printer, but for those who require *real* letter quality print a "daisywheel" printer is on the way too, although from an independent manufacturer. The print from this is produced in the same way as a typewriter prints, so is of a very high quality, although it cannot cope with the range of graphics (eg. copying the screen contents onto paper) that a dot matrix printer can.

A DEAFENING SILENCE

Owners of PCW's who use them in open plan offices will be all too painfully aware that the standard printer it uses can be very noisy. By lunchtime the constant drone of the print head is set to make even the proverbial demented bee curse. Even at home, it would be nice not to have your neighbours banging on the wall every time you print a letter out.

Now salvation is at hand from Mayfair Marketing in the shape of an acoustic cover for your printer. The MAC 2 (Mayfair Acoustic Cabinet, size 2, for all acronym collectors) is a cover specially designed for PCW's – as you can see from the picture, while the MAC doesn't exactly enhance the compact, low-profile looks of your PCW setup, it seems to be fairly well tailored to the PCW printer's needs and paper feeding mechanisms.

For users with different printers, Mayfair also make two other sizes of covers, so contact them with your vital statistics for a quote. Normal selling price is £89.95, including VAT, and Mayfair Marketing live at 205 Coast Road, Rhyl, Clwyd LL18 3US (or phone 0745 32484). As a launch offer, Mayfair will sell the MAC 2 to 8000 Plus readers at a reduced price of £69.95 plus 2.55 p&p, so remember to say where you heard about it first. Mayfair said some very nice things about 8000 Plus in their letter to us, but we spotted that their publicity photograph shows a suspiciously similar letter coming off their printer, addressed to "Your Computer & Putting Your Amstrad To Work" magazines. Ah, the wonders of computerised mailshots.

The MAC 2 acoustic printer cover in situ beside a hardworking PCW.

PC 1512 PRICE RISES

Amstrad have announced that as of 1st January 1986 there will be an across-the-board price rise of 12½% on their entire range of PC 1512s.

This means the price of the basic model, the single disc drive monochrome monitor "SD", will go up from £399 to £449 + VAT, and at the other end of the scale the 20MB hard disc colour "HD20" will go up from £949 to £1067 + VAT.

Amstrad say that the reason for the price rise has been unhealthy exchange rate fluctuations – the pound has fallen 24% against the Yen in recent months, and even though the PCs are manufactured in South Korea the Japanese Yen is the dominant currency for buying components.

Cynics might say that since Amstrad have taken orders for 300,000 machines in the last two months and by their own admission won't be able to supply them off-the-shelf until the middle of next year, the price rise is a nifty way of both increasing profit margins and cutting what could be an embarrassingly large backlog of orders.

It isn't clear whether the price rise will apply only to orders placed after the big day, 1st January, or to all machines delivered after that date. Current delivery estimates mean that even if you order now you won't see anything before the new year, so it could be an important factor. Check out your local branch of Dixons for their version.

Meanwhile the price hike only goes to make the PCW 8256 and 8512 machines seem even better value for money. As yet, the 'exchange rate fluctuations' have not affected PCW prices, so £399 + VAT still buys you a complete system with printer. We can't see what all these PC people are so excited about.

Dust covers and carrying cases

Crown Dust Covers of Williton (0984 33377) have published their updated catalogue of protective kits for roving PCWs.

There are simple dust cover sets in ultra-violet filtering PVC (to protect your PCW from a suntan), and these can be customised with screen printed company logos for orders of 25 or more.

Alternatively, you might like a padded carrying set to transport all the component parts of your PCW safely. they're available from the same company, and come in waterproof blue or black nylon.

Crown's dust cover and carrying case selection

Desk Top Organiser

If you're one of those people whose PCW is just covered in yellow sticky notepads saying "Dentist: 3pm Thur", "Witch Doctor: 1 am, graveyard" and "24-13 – crossed out scrawlings", then a new product from Digital Integration could be of interest.

Called the Companion, it is a program that sits around in the background while you run your usual programs (except LocoScript, unfortunately). Then, at the press of a magic button, part of the screen becomes a calculator, a notepad, an address book or clock. Keep your doodlings electronically filed, and then you can return to the program you were running normally.

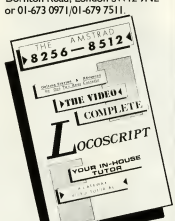
Competing openly with Hisoft's Write Hand Man, the Companion sells for £19.95 and will be available from 19th November. For further details contact Digital Integration on 0276 684959.

LocoScript Video

Manuals are looking increasingly old-fashioned as a means for teaching people how to work their computers. First a spate of tutorial programs appeared on the market, and now there are tutorial videos.

New out from Gateway Video Tutorials is "The Complete LocoScript". This is in fact a bumper pack of two separate one-hour tutorials; "Getting started" and "Advanced LocoScript" both retail for £15. The Complete package can be bought for £25. Add £1.10 post and packing for each tape.

If you want to sample Gateway's wares, you will find them at 68A Dornton Road, London SW12 9NE – or 01-673 0971/01-679 7511.



Printer Extension Lead

The ribbon cable that connects the printer to the PCW is infuriatingly short if you want to place the printer anywhere apart from right by the screen. If this causes you endless frustration, one investment you might find valuable is a printer extension lead from Euromax. It is 18" long, and sells for £10.95 – contact them on 0262 601006/602541 for details.

Protext on the PCW

Arnor are at last set to release their Protext word processing package on the PCW range of machines.

Protext has carved a very good name for itself on the Amstrad CPC machines, and the published performance figures for the new version look very impressive. Indeed, Protext could well become the alternative word processor for LocoScript-weary PCW users.

On an operation like searching through a file to replace every occurrence of a word with another, Protext is said to be 25 times faster than LocoScript, and 12 times as fast as NewWord, its nearest rival. The price for the PCW version will be £79.95, which includes a mail merge program and the Prospell spelling checker, which itself retails for £29.95 as a separate package.

Protext should be available from the second week of November – ring Arnor on 01-684 8009 for details/orders. We will be carrying a full review of Protext in the next issue of 8000 Plus.

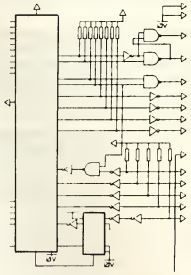
Protext in action: the publicity photographs bear a remarkable resemblance to those used to sell Prospell for the past year. Come on guys, give our readers some new material to look at.

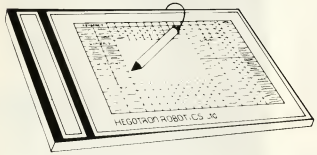
GRAFPAD II & POWERCAD

for AMSTRAD PCW 8256/8512 £149.50

now for AMSTRAD PC 1512 IBM and Compatibles £195.50 inc. VAT

A complete Draughting system for Architects, Engineers, Electronic Designers and anyone involved in drawing schematics, technical illustrations etc.
Grafpad II is a unique, Low Cost Digitiser Tablet.
Powercad is a professional CAD software package.
Together they make a Computer Aided Draughting system for use with the Amstrad CPC 6128, PCW 8256/8512, and NOW the PC 1512 and IBM and Compatibles.
The system represents an order of magnitude breakthrough in price/performance relationship.
The programme is totally Menu driven, with the Menu printed on the Tablet Overlay sheet.
Items are selected by moving the Pen to the desired function on the Menu and closing the Pen switch.
Ultimate **USER FRIENDLINESS** is achieved.





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A MOUSE IN

A lot of micros these days come complete with their own mice. This isn't a concession to the World Wildlife Fund, as it'll be some years yet before mice become an endangered species. They're there because they've proved very useful in helping to familiarise people with computers. So can they do the same for the 'umble PCW? We look at two new packages which add bald plastic rodents to your favourite word processor.

MOUSE/INTERFACE
£129.95 ● The Electric Studio

This company is perhaps best known for its light pen and art program, and with this background a mouse package seems a natural extension of their product line. The system is supplied in two boxes, one for the interface and the other for the mouse itself. The art software and manual is supplied with the interface rather than the mouse, but as you can only run the two together, perhaps this isn't so odd.

The mouse interface is similar to Amstrad's serial and printer box in size and shape and fits in the same place. If you have Amstrad's unit don't dispair, as the mouse interface is fitted with a through connector which allows you to piggy-back the two boxes.

The bottom of the mouse interface is fitted with a nine pin 'D' type connector of the type used for connecting joysticks on machines such as the CPC range. This is where you plug in the mouse. The Electric Studio rodent is supplied with a good long tail, so you can use it comfortably wherever you have positioned your PCW on your desk.

Anatomy

The advantage of using the art program with a mouse is that it's less tiring on your arm than poking at the screen. You also have a bit more control when doing fine work.

In addition to the features available from the Light Pen version of the program, you can now select any area of the screen and save it to disk for later use. You can also stretch and squeeze a picture and produce some interesting distortions.

Also supplied on the art disk are a joystick interface program, which allows you to plug a joystick into the mouse socket and use it with some games, and a useful utility which scans the mouse from within any CP/M program. This means that you can use the mouse instead of the cursor keys from within application programs such as WordStar.

The Electric Studio art package has been described in many places since its release (See October's Good Software File for a recent mention) and is still a very good menu-driven art package.

On the PCWs you're restricted to a monochrome display, of course, but otherwise the package can do just about anything you would expect of a computer art program. You can draw lines, circles, rectangles and all

TODAY'S MENU

One of the really zingy features of new micros like the (hushed whisper) Apple Macintosh and (even hushder whisper) IBM PC is the so-called WIMP. This has nothing to do with nine stone weaklings rubbing the sand from their eyes, but stands for Windows, Icons, Mouse and Pointer. The idea is that pointing to items on a menu with a pointer controlled by a mouse is a lot easier than typing things like

```
pip b:=a:*.*[v6]
```

and who could argue with that?

All this has come about since the advent of the above mentioned micros, and poor old CP/M has been left behind as a less fashionable (and therefore less profitable) operating system.

However, things look set to change, almost entirely because of the increased interest in CP/M generated by the arrival of the Amstrad CPC and PCW series. New products such as 'Fleet Street Editor' from Mirrorsoft and Kempston's 'Desktop' package look set to bring pull-down menus and pop-up windows to the masses. Only thing is, with all this pulling and popping, who is going to supply the Quells?

THE HOUSE

sorts of polygons, fill them with all sorts of patterns and put them in all sorts of places on the screen. You can brush and spray areas of the screen, copy sections of your picture from one area to the other, mirror and invert them and zoom in to tidy up areas dot-by-dot. All in all, it is a very comprehensive program.

Fodder

The mouse is a large example of the species in two-tone grey, with three buttons on top and a small slide switch on the side, which falls naturally under your thumb when in use. The three buttons can be set up to imitate a variety of different functions, depending on the software you're running at the time. The slide switch is used to lock the x and y co-ordinates within the art package to help draw straight vertiacl or horizontal lines. In use, the mouse is comfortable to hold and the large, weighted ball is damped so the mouse moves smoothly across the surface of a desk. Against this, though, damping does make the mouse very difficult to move quickly, and you can get some slippage of the ball on the desk, even when the desk surface is quite rough. Also, one of the buttons on the review mouse was very stiff to use, although the buttons on other Electric Studio mice didn't have this problem.

Subjectively, I'd have liked the mouse to have a lighter action, not so much for drawing, but when using it with other software.

TRACKING THE MICRO MOUSE

For some years researchers in the USA were looking for a more convenient way of using a computer. The main problem they were trying to overcome was the reluctance of anyone who was not a trained typist to use a keyboard. The answer they arrived at was a small box with a button on top. Used with the right software, a lot of the jobs an office micro was required to do could be done very simply by selecting options from menus on the screen.

The mouse itself is a small plastic box with a large freely-rotating ball built into its underside. As you push the mouse around on your desktop, the movement of the ball is translated to movement of a cursor on the screen of your micro. By pointing with this cursor and 'clicking' one of up to three buttons on top of the mouse, you can select and execute the functions of a computer program.

The idea of the mouse has caught on rapidly and many new micros are provided with one as standard, together with software which makes use of it. However, there is currently little software available for CP/M micros, like the PCW, which makes use of the mouse. This may soon change.....

VERDICT

The whole package works well, and the Electric Studio art program has been around a good while now and so is pretty reliable. The question is whether you really want to spend nearly £130 on an art package and a mouse. The mouse has very limited use outside the Electric Studio itself as there isn't a wide variety of 'mousey' software available under CP/M. Unless you have a specific application for the art package, perhaps you should think twice. ▶

PLUSES

- **Professionally finished hardware and software.**
- **Software to use the mouse in CP/M programs.**
- **Software to use a joystick with the interface.**

MINUSES

- **Movement of the mouse is a bit too 'damped'.**
- **Little software available that makes use of a mouse.**
- **The interface and mouse together are expensive.**

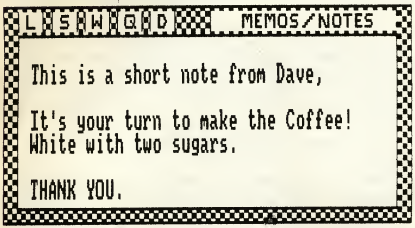
RANGE OF FEATURES ■■■■	OVERALL SPEED ■■■
EASE OF USE ■■■	DOCUMENTATION ■■■

***8000 PLUS* VALUE VERDICT ■■■□□**

Mouse in the Pipeline

Kempston Mouse with Nabitchi Desktop

There's a lot of interest in mice at the moment, and rumours of new and exciting products keep filtering through the still air to sunny Somerton. One which reached our ears recently had more substance to it than most, so we thought you'd like us to follow it up.

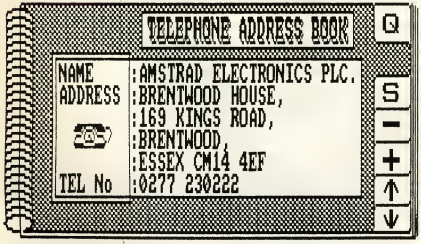


The memo pad for jotting down bright ideas as they occur to you

Kempston Micro-electronics, famous for joysticks and interfaces on many recent micros, are in the process of putting together a mouse package which promises to have a few facinating extras. The mouse itself is a high quality far-Eastern unit with two micro-switch push buttons and a good light action. It comes complete with a compact interface box, though without a through connector for serial ports and the like.

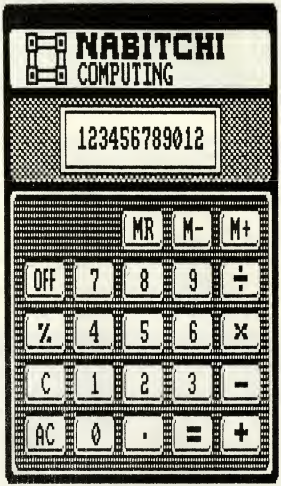
The most interesting part of the package, none of which will be available for a couple of months yet, is the software which comes with it. This is written by Nabitchi, the up and coming software company who aren't nearly as Japanese as their name suggests.

The main brains behind Nabitchi are incommunicado at the time of writing, finishing off the finer points of **Desktop**, the software package which will be supplied with the Kempston Mouse.



The address book

There are two parts to Desktop, a drawing package along the lines of The Electric Studio's Art program, and a memory-resident desk utilities package. For those who don't, all these programs provide extra desk 'accessories' which can be used from with other programs.



The calculator

Desktop will provide a calculator, telephone/address book and memo pad which can be called up at any time from within LocoScript. Each of these items will 'unroll' onto the screen and can be operated from the mouse or the keyboard. The advantages of having a place to store notes while writing a letter, or being able to tot up a column of figures in an invoice are plentiful. The fact that they are there without having to leave LocoScript is an added bonus.

The **Desktop** package promises to make the mouse a much more desirable animal, and we look forward to seeing the finished package and giving it a full 'On Test' review. ▲

The Kempston mouse in the flesh (or the fur!), with its interface

SuperCalc2™ versus The Cracker2

Questions to ask yourself about Spreadsheets.....

1. Which one is a **current edition**, written entirely in machine code and supported by its author?
2. Which one uses sparse matrix storage techniques to maximize workspace, and extensive context-sensitive help messages?
3. Which one is available with immediate quotes for site and corporate licenses and can transfer datafiles to and from it's PC counterpart via an optional serial transfer program?
4. Which has *built-in* self verification and powerful macros?
5. Which has *built-in* date, timer and I/O commands?
6. Which has DIF and dBase™ file compatibility *built-in*?
7. Which one even has a mailing label print option?
8. Which one has built-in high resolution screen and printer graphics?
9. Which one is written by a British author, costs £49inc, & represents the better all round value?
10. Which one are you going to buy?

(The answer is Cracker2!)

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LOCOSCRIPT

In which Philip Last explains how to keep tabs

When preparing any document, from a simple letter to the manuscript for a book, knowing how to lay out the page in a way that will catch the reader's eye is an essential skill. The art of making someone want to read a paragraph by its look can mean the difference between the Booker prize and a rejection slip.

LocoScript has a surprisingly large variety of commands to help you lay out your documents in different ways. This month we take a look at how to get the measure of rulers, tabs and the dreaded layouts – why, when, where and how to use them.

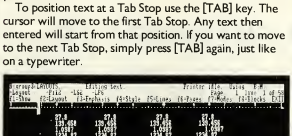
Using Layouts

The basic elements of laying out pages are tab stops, as used on simple typewriters. To set and alter these, you need to be able to create and edit LAYOUTS. Other features that layouts give you control over are the positions of the left and right margins, and whether or not the text is "justified" – each line expanded so that it is aligned to the right hand margin.

First of all, here's a whistle-stop tour of the kind of things you can achieve with different layouts, and tabs in particular.

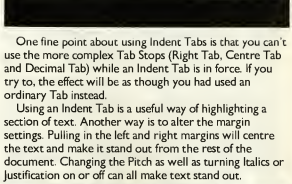
LocoScript offers 4 different types of Tab Stop: Tab, Right Tab, Centre Tab and Decimal Tab. Each has a different effect upon the text. With **Tabs**, text will be left justified to the tab position; a **Right Tab** will right justify text to the tab position; a **Centre Tab** will center text about the tab position; with **Decimal Tabs**, the first full stop in text or decimal point in a column of figures is positioned at the tab.

To position text at a Tab Stop use the [TAB] key. The cursor will move to the first Tab Stop. Any text then entered will start from that position. If you want to move to the next Tab Stop, simply press [TAB] again, just like on a typewriter.

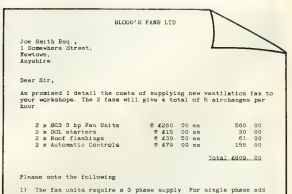


The positioning of text at a Tab Stop lasts only until the end of the line. If the text continues past the line end, the new line will start at the left margin. To allow a whole paragraph to be positioned at a Tab Stop, LocoScript has another type of Tab, the **Indent Tab**.

To get this press [ALT] and [TAB] – ie. hold down [ALT] and then press [TAB] at the same time. In effect, this moves the left margin to the Tab Stop until the next time you press the [RETURN] key, when it reverts to its old position.



▲ An example of using different layouts in a letter.



▲ This is how it looks printed out

One fine point about using Indent Tabs is that you can't use the more complex Tab Stops (Right Tab, Centre Tab and Decimal Tab) while an Indent Tab is in force. If you try to, the effect will be as though you had used an ordinary Tab instead.

Using an Indent Tab is a useful way of highlighting a section of text. Another way is to alter the margin settings. Pulling in the left and right margins will centre the text and make it stand out from the rest of the document. Changing the Pitch as well as turning Italics or Justification on or off can all make text stand out.

More on Indent Tabs

You can use the Indent Tab even if you have no Tab stops set up. If you insert an Indent Tab in the text, LocoScript will start the next line at the tabs position and continue doing so until you press [RETURN].

T'S LAYOUTS

on LocoScript's various layout features.

A New Layout

Here's a step by step look at how to actually go about creating a new layout. Before starting, try to decide exactly what you want to achieve. If you want to insert Tab Stops to lay out columns of figures then count how many characters are likely to be in each column and how far apart they will be spaced. If there are a lot of columns, can you get them all in? You may need to increase the character Pitch (ie. use smaller text). Do you want to highlight areas of text by bringing the margins in or just by indenting the paragraph?

1 Step 1 is to press [f2] and up will pop the *Document layout* menu. The menu is divided into two parts, the top section, labelled Insert layout and the bottom section, labelled Edit Layout. The 'brand New layout' option will be highlighted and this is the one to select by pressing [ENTER]

2 The top three lines of the screen (the information lines) will change. The lines that concern us are the middle line and the ruler line below it. The middle line displays the current settings for Pitch, Line Space, Line Pitch, Italics and Justification. Pitch is highlighted and can be changed by using the [+] and [-] keys. When the Pitch is set, simply move along to the next option using the cursor right key.

LocoScript assigns each new layout a number, which it is known by from then on. This number is shown on the top line of the *Editing layout* screen – for instance, it's '3' in the example.

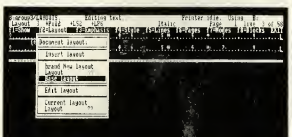
3 All the options on the middle line can be changed using the [+] or [-] keys. When you have set Line Space, move to Line Pitch, Italics and Justification until all the options are set. If you want to change any of them, go back using the cursor left key. When you've finished move down to the ruler line with the cursor down key.

4 The cursor highlights the position of the left margin. If you want to change this use the cursor left and right keys until the cursor is positioned where you want it. Press [f1] and the left margin will move to the cursor position. Do the same with the right margin but press [f2] to position it. If you attempt to put the left margin the wrong side of the right margin the PCW will beep in frustration.

5 Tab Stops are inserted by moving the cursor to the position you want them and by pressing [f3] (Tab), [f4] (Right Tab), [f5] (Centre Tab) or [f6] (Decimal Tab) depending on what type of Tab Stop you want. If you put a Tab in the wrong position, centre the cursor over it and press the [-] key. Unless you've altered the base layout (see later), you won't be able to insert more than 10 Tab Stops.

6 When you've finished making all the changes, press [EXIT] to return to the Editing text screen. The new layout, with a carriage return, will be inserted in the text. The information lines at the top of the screen will display the layout number and Pitch, Line Space and Line Pitch settings. The ruler line will change to that set up under the new layout.

If you want another layout, repeat the procedure. You can't get more than 5 layouts without altering the base layout.

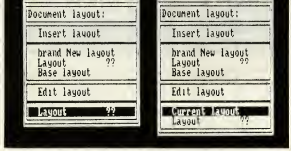


You can return at any time to the base layout by highlighting that option on the Layouts menu and pressing [ENTER]. Similarly, once you've created a layout you can reuse it later on by highlighting the 'Layout ??' option on the Layout menu, typing the number of the layout in question and pressing [ENTER].

Editing an Existing Layout

If you create a layout and then realise later on that you have perhaps put the Tabs in the wrong places, all is not lost. Another option on the 'f2 Document layout' menu is 'Edit layout' – if you're currently using the base layout then the menu will have only one option, Layout ??. If you already have a layout in place then a further option, Current layout, will be offered. Highlight the one you want. If it's the current layout, press [ENTER], if not then first enter the number of the layout you want to change before pressing [ENTER].

Once in the layout editing mode, changes can be made in exactly the same way as described in 'A New Layout'. The main difference is that the layout won't be inserted when you exit back to the Editing text screen. To do that you must select the option, Layout ?? , from the top half



of the layouts menu. Be careful when editing a layout that you have already used in your text. Any changes to the layout will take place throughout the document where that layout has been used.

Base Layouts

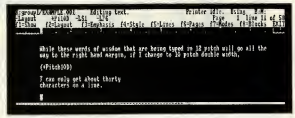
So far we've seen how to use ordinary layouts to do simple things like defining tabs across the page. However, there is a special kind of layout called the Base Layout which has an important role in LocoScript.

When you first create a new document (using the C key from the disc management menu) and you start typing text, a particular Layout is being used by default without you having specifically set one up. This is known as the Base Layout, and is defined in the TEMPLATE.STD file that is in the current group.

The Base Layout has certain special effects. Firstly, it determines the width of the lines on the printed page. The distance between the left and right margins gives the number of characters that will be printed on the line, using the character size (the "pitch") which is defined in the Base Layout itself.

For example, looking at the screen picture below, the left margin is set at 10 and the right margin at 88. This means that there are 78 characters per line, and the text is being printed in 12 pitch – ie. 12 characters per inch, so each character takes up 1/12". Therefore, the line length is 6.5".

Now this doesn't sound very surprising, but the importance of the settings in the Base Layout becomes apparent when you change print size. LocoScript will always keep the line length to 6" from now on, with these margin settings, no matter what the pitch used is. Consider changing the pitch to double spaced 10 pitch (using the 'f4 Style' option): this allows you to use five characters per inch.



Therefore, on the 6" line you will get 30 characters. This is eminently sensible since most pieces of paper are the same width all the way down the sheet, but it is worth understanding how LocoScript judges these line lengths otherwise you will be surprised and puzzled when your line on the screen appears to end after 30 characters even though the right margin apparently allows 88.

The other important effect the header has is to establish the style that headers and footers will appear in, if you are usng them. You will probably have noticed that if you are printing in bold text or some other effect and your text runs across a page break, the header at the top of the next page is not in bold. Instead, the options defined in the Base Layout are used.

Editing the Base Layout

It only usually makes sense to edit the Base Layout when you are creating a new TEMPLATE.STD file. In this case, the changes you make will also be used in all files created from that template; otherwise it is a lot faster just to insert a whole new layout.

To get to the Base Layout, press [f7] 'Modes' while editing a file, and select 'Edit Header'. Press [f7] again, then [f1] on the new screen, and you are now editing the base layout. The screen you see is exactly the same as for editing any ordinary layout.

When you have finished editing the Base Layout, keep pressing [EXIT], and [ENTER] whenever a menu pops up asking you to confirm that you really mean it, until you end up back in the editing text screen.

Getting More Layouts

As we have seen, LocoScript normally restricts you to a maximum of 10 tab stops and 5 layouts. You can increase the number available to you if need be: press [f7] and select Edit Header, then pressing [f7] again will take you into Editing Header mode.

Select 'f5 Tab Count' and you will be presented with a menu containing both Tab Counts and Layouts. Highlight the option you want and type a number. Press [ENTER] to register the change. Both can be set to a maximum of 99 although doing this will add 10k to the length of the document.

To return to the Editing Text screen press [EXIT], [ENTER], [EXIT] and [ENTER] in that order. ▲

Short Cuts

You may find some layouts to be so useful you would like to have them available all the time. If you set up the layout in Template.Std then every time you create a document in that group, the layout will be there ready for you to use.

Once set up, layouts can be inserted without using the layouts menu. Press [←] LT followed by the layout number you want. Then press [ENTER] & [RETURN].

If you want to return to the base layout, press [-] LT.

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For The

Amstrad PCW 8256/8512

Line style from the Graphics Editor

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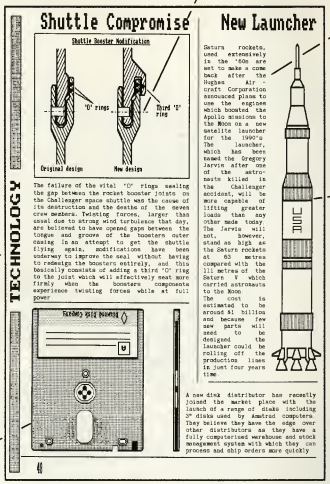
Justification from the Word Processor

Drawn using Shapes in the Graphics Editor

Sideways text from the Graphics Editor

Complete page pasted from the Layout Organiser

Shading & Fill from the Graphics Editor



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AMSTRAD PCW 8256/8512 and CPC6128

A PROCESS OF

WORD PROCESSING: TH

Are you 100% delighted with your Word Processor? Have you got any choice?

Well until now, perhaps not, but read on because we have some interesting facts for you.
We have tested some of the more popular word processors for the Amstrad PCW machines and we have presented a fairly comprehensive listing of our findings.
Use this information freely, before you decide on your next Word Processor.

A Comparison of Amstrad Word Processors

Benchmark timings

All tests were carried out on a standard 1817 word document. Tests 7 to 10 were carried out on a standard 262 word paragraph. All times are in seconds.

	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
Version:	2.00	1.20	1.00	2.17	3.05
Computer:	PCW8256	PCW8256	PCW8256	PCW8256	PCW8256
1. Load document	6	12	8	18	10
2. Save document	7	84	19	13	19
3. Merge document to middle of itself	5	269	11	21	11
4. Move cursor from start to end	0.5	34	6	3	4
5. Move cursor from end to start	0.1	15	3	4	3
6. Replace 'the' with 'THE' 205 times	5	128	297	73	208
7. Format paragraph	1	10	12	6	6
8. Move paragraph to start	0.2	42	13	9	9
9. Move paragraph to end	1	80	13	9	4
10. Delete paragraph	0.3	19	3	5	4

"I am stunned by the speed at which Protext performs the text operation, there is nothing like it on the Amstrad" . . .*AMTIX MAGAZINE*

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But speed is not everything, so to be fair we should also show a summary of the main features. . . .

LocoScript is a trademark of Locomotive software Ltd, Tasword 8000 is a trademark of Tasman Software Ltd, NewWord

F ELIMINATION

THE FACTS EXPOSED

Feature comparison

FEATURES	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
What you see is what you get	y	y	y	y	y
Works with any printer	y	-	y	y	y
Unlimited file size	y	y	-	y	y
Two file editing	y	-	-	-	-
Auto re-format	y	y	y	-	-
Layout commands stored in text	y	y	-	y	y
Spelling checker	y	-	-	y	y
Spell check from within WP	y	-	-	-	y
Find/anagram options	y	-	-	y	-
Background printing	y	y	-	-	y
Insert or overtype	y	-	y	y	y
Delete line command	y	y	y	y	y
On screen help	y	y	y	y	y
Dynamc screen update	y	y	-	-	-
Headers and footers	y	y	y	y	y
- different even and odd	y	y	-	-	y
Soft hyphens	y	y	-	y	y
Soft spaces/returns	y	y	-	y	y
Non break space	y	y	-	y	y
Decimal tabs	y	y	y	y	y
Format whole document	y	-	-	-	-
Page break indication	y	y	y	y	y
Page/line number display	y	y	y	y	y
Column manipulation	y	-	-	y	y
Column replace mode	y	-	-	y	-
Multiple block buffers	-	y	-	-	-
Undelete block	y	-	-	y	-
Undelete line	y	-	y	y	-
Save block	y	y	-	y	y
Calculator	y	-	-	-	-
Print multiple copies	y	-	y	y	y
Print selected pages	y	y	-	y	y
Print block	y	-	y	-	-
Print to screen	y	-	-	y	y
Typewriter mode	y	y	-	-	-
Change printer at any time	y	-	-	y	y
Embedded printer codes	y	y	y	y	y
Print translated characters	y	-	y	-	-
Turn off printer code display	y	y	-	y	y
Display returns/tabs	y	y	-	-	-

FEATURES	Protext	Loco-script	Tasword 8000	Newword	Pocket Wordstar Deluxe
On screen underlining	-	y	-	-	-
Built in Foreign characters	y	y	-	-	-
Separate accents	y	y	-	-	-
Catalogue files	y	-	y	y	y
Delete file	y	y	y	y	y
Rename file	y	y	y	y	y
Copy file	y	y	-	y	y
Format disc	y	-	-	-	-
Type disc file	y	-	y	-	-
Auto file backup	y	y	y	y	y
Find/replace - wildcards	y	-	-	y	y
- selective or all	y	y	y	y	y
- ignore case or not	y	-	y	y	y
- search for any string	y	y	-	y	y
- search for control codes	y	-	-	y	y
- find nth occurrence	y	-	-	-	y
Mail merge - data from file	y	-	y	y	y
- data from keyboard	y	-	y	y	y
- re-usable variables	y	-	-	y	y
- string/substring expressions	y	-	-	-	-
- numeric arithmetic	y	-	-	y	-
- polymorphic operators	y	-	-	-	-
- multiple data files	y	-	-	-	-
Conditional printing	y	-	y	y	y
- nested	y	-	-	y	y
Repeat/until loops	y	-	-	-	-
Insert file whilst printing	y	-	-	y	y
Format whilst printing	y	-	-	y	y
Auto widow/orphan elimination	-	y	-	-	-
Keep lines together	-	y	-	-	-
Microspacing	y	y	-	y	y
Proportional spacing	y	y	-	-	-
Built in word count	y	-	y	-	-
Character count	y	-	y	-	y
Place markers	y	y	y	-	y
Comments within text	y	-	-	y	y
Program editing mode	y	-	-	y	y
Create ASCII file	y	y	y	y	y
File conversion utility	y	-	-	-	-
User definable keys/phrases	y	y	y	-	-

Arnor Ltd. September 1986

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DIARY OF A NOBODY

The pages where 8000 Plus readers explain how they could have revolutionised the world if only ...

This month we start a new feature series. We are looking for users of PCWs who have decided to branch out from LocoScript and exploit the more powerful facilities that their machines have to offer as computers running accounts, databases etc.

We are looking for readers to fill these pages in future months. If you have an interesting application for your PCW, and you do something more than just running LocoScript, we'd like to hear from you. To offer pearls of wisdom from your experiences to our readers, send us an article of not more than 2000 words outlining your experiences and giving a telephone number. Write to *Case In Point, 8000 Plus, The Old Barn, Somerton, Somerset TA11 5AH*, and we'll pay generously for contributions used.

To give the series a light-hearted kick-off, we scoured the streets of Somerton (well, OK, the only street) for a guinea pig. We found one, but our intrepid interviewer found it difficult to transcribe its series of squeals into two pages of interesting reading. Instead, we found typical PCW user Kit Identy, who has lived through the traumas that all PCW owners face sooner or later ...

8000 Plus: Kit, if I may call you Kit, when you decided to buy a PCW what did you envisage yourself using it for?

KI: Well, I've been secretary of the local badminton club for three or four years now, and I've had a lot of writing to do for that; knocking up tournament timetables, writing to secretaries of neighbouring clubs arranging fixtures, that kind of thing.

Anyway, until now I've struggled by on my trusty rusty manual typewriter, but not having shares in Tipp-Ex, I decided that I was onto a loser. So the badminton club gave me an excuse to buy the machine, or at least one that I could fool the wife with (she won't see this, will she?), but I also had this hankering to do some real writing. I know I could be the new Jeffrey Archer given a good break.

Mind you, I'd also heard of the 'power of computers', so I reckoned that once I got over the initial culture shock I would buy some programs like a database to keep the club records on, and perhaps keep track of the mortgage payments.

8000 Plus: Sounds as though you had a good workload planned for it – how did you manage before you bought it then? Perhaps you had another computer?

KI: No, no, I just struggled by on a pencil and paper, much as you would expect. I wrote letters by hand and my 'database' was a pile of scraps of paper piled in strategic corners of the house. It took a fair time to get anything done, but strangely I don't really seem to get things done any faster now.

There's an unwritten law of life which says that the work you have expands to fit the time you have available. That's certainly true with computers – whereas in the old days once you've written a letter that's it, now I can spend hours over a single letter refining the phrasing over and over again. It requires a little self-discipline to say, "OK, cut, it's good enough."

8000 Plus: So you went out to Dixons or wherever –

KI: Lasky's actually.

8000 Plus: Lasky's, and came home with a large brown box proudly marked "Ordinateur Personnel avec Traitement de Textes Integre". How did the first weeks go with the 'Joyce'?

KI: (Retching sounds) Yeeeeuugh, I hate people who call PCW's 'Joyce'. It smacks of a patronising attempt by Amstrad to make all the owners feel part of one big happy family before taking them for £40 to join their user club.

But I digress. My first hours went remarkably well. Contrary to popular opinion I found the manual was quite readable at first, and I got through the 'Your first twenty minutes' part without tears or tantrums. It was when I began to want to do more complicated things with LocoScript that I began to come unstuck, as the manual never quite seemed to deal with the questions that I asked. I bought a couple of books like the Clarity Guide, Mastering the PCW and so on, and struggled by.

Anyway, by the end of two weeks, doing between two and three hours work most nights, I felt I could bang out a page-long letter much faster than I could hand write it, more neatly and with much greater precision of expression, which was the main point after all.

It took me a week of soul-searching to understand how to get right-justified text – it's a setting in the Layout options. If you use the "+Rjust" code in LocoScript you get a smooth right margin all right, but the left margin goes all skew wiff. I never have found a use yet for the "+Rjust" command. I wonder what it was meant for?

8000 Plus: So when did you pluck up courage to mumble the magic phrase "CP/M" and look for some other software, like the database you mentioned?

KI: It took about a month for me to feel happy with the PCW, although I hadn't at that time tackled headers and footers with any conviction, and then I began to peruse WH Smith's esteemed shelves for magazines. At that time, the choice was Amstrad Computer User or Exchange and Mart, so I plumped for the latter.

After buying a few bags of horse manure from their small ads, none of which fitted my disc drives by the way, I went back and bought an ACU after all. Seduced by glossy adverts, I bought Cardbox – "idiot proof" it said, a challenge if ever I saw one.

I've always been quite good at reading manuals, and within a week I had the membership records of the

badminton club set up. Only 40 names at first, it can hardly have been worth it in retrospect, but once you've got a computer you've got to use it, haven't you?

I realised the size of my error when I came to printing out my database. Like any sane person, I wanted to get an alphabetical list out of it and it never occurred to me that any database wouldn't do that. I was a bit peeved when the truth dawned, but I've had to live with it.

8000 Plus: So how have you got round the problems?

KI: Well, once I had reconciled myself to not being able to produce a simple sorted membership list I got on OK. Cardbox is certainly easy to use and it's great for storing lists of who lives where, when they paid their subscriptions and who they are currently going out with. I'm thinking of setting up Kit's Private Eye Agency soon.

One of my friends is a professional programmer at A Well Known Electronics Company, as they say, and I know he swears by dBase II. He tried to explain how to use it one evening but I knew straight away it was far too complex for a non-programmer to get to grips with, although he seems to get good results from it.

Although I shouldn't admit it to a journalist, a PCW-owning, truck-driving friend had bought another database for his machine, and one day as I was driving along behind his lorry a copy of his disc just sort of fell off the back of it and landed in my car. What a coincidence.

The upshot was that even that nameless one didn't meet my needs, since it was nigh on impossible to get data from it's guts into LocoScript to use in letters and documents. I've yet to see a really useful database, although at least I now know what are the right questions to ask a salesman.

8000 Plus: (coughs loudly) Yes, well, let's move on. You seem a bit negative about databases: Are you suggesting they're not much use?

KI: No, not at all. I'm sure databases are wonderful things, I'm just saying that for the simple home user, as opposed to business person, running a database program just to catalogue your extensive collection of Bert Weedon memorabilia, or to keep your family address list may be more trouble than it's worth.

For businesses, it is a bit different. I know that at work we use one for simple customer records and credit chasing, and that is worth its weight in gold. I think that one was custom written by a software house for them – I guess that you've got to find a program suited to your needs. One day I will find the perfect database for me, but until then the number of scraps of paper floating around at home still increases.

8000 Plus: Do you own any other software now. Legally, that is.

KI: No, but I'm looking around again. I think I now understand what spreadsheets are for, and they sound pretty useful things. I can do the club accounts much more efficiently if I get one.

As I gather, you have a large blank work area split into rows and columns, and you just plonk down everything you know in into these boxes, give everything headings, and then all the rows and columns can be totted up and cross referenced for you. If you have to change a figure in one of the columns, the program automatically adjusts the rest of the figures to fit in with the new version.

I began by telling the wife that I ought to buy one to do the "home accounts" on, but after my experiences with the database I've learnt to consider carefully what I am actually going to do with a program before I buy. When I imagined myself typing in "Groceries: £2.37" and "Packet of crisps at the station on the way to work: 13p" every evening to make the domestic budgets balance, I realised it would be a total white elephant that wouldn't get used after the first week.

But for club accounts, whether it proves to be easier or not it means I can provide computer printouts of things to back figures up, and no-one ever argues with computer printouts, do they? I'm very optimistic about spreadsheets' usefulness, and strangely I think it will get a lot more wear than my database has. Currently I'm agonising between SuperCalc 2, Scratchpad Plus and possibly Pocket CalcStar.

8000 Plus: Well, let us know how you get on.

KI: Indeed. And thanks for asking.

8000 Plus: Thank you for sparing the time. ▲

FOR THE AMSTRAD PCW 8256/8512:

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NEW FACES

FONTGEM
£19.95 ● Gemini Marketing ● 0395 265165

Although the PCW is a dab hand at producing letters and documents, after a while the standard text that the printer produces becomes a bit boring.

Many people actively dislike the ordinary typeface that they are lumbered with, but even if you like it there are so many PCWs around now that letters run off from LocoScript are instantly recognisable. It would be nice to be able to print in a different style, just so that people think you really own a much more expensive word processor.

The font of all wisdom

The style that characters are printed in is called the "font", and it's the font that gives the distinctive look to a page. Gemini's FontGem provides the PCW with a choice of eight different fonts to replace the standard one with, and these can be used from LocoScript or any CP/M program. There are four "business" fonts and four novelty fonts, illustrated elsewhere.

The good news is that unlike many previous programs offering alternative fonts, FontGem's really are readable, useful, interesting and a valuable addition to the PCW's talents. In particular, "Business 1" is a good letter writing font, and "Olde English" and "Vaudeville" are ideal for giving circulars or notices that extra bit of style.

How it works

FontGem is very simple to use, can be learnt in 15 minutes' and then becomes second nature. Once you've decided which font you want to replace the ordinary one, you run FontGem. It then asks you to put your CP/M or Locoscript startup disc in drive A: and then modifies it to permanently change the fonts that your PCWproduces.

This is Business 1 font
This is Business 2 font
This is Business 3 Font
THIS IS BUSINESS 4 FONT
This is Outline font
This is Vaudeville font
This is Olde English font
This is Stencil font

A brief sample of FontGem's range

Note that the font change is irreversible, so you must keep a copy of the old startup disc if you ever want to use the standard font again.

You can now throw the FontGem manual away if you like, since you won't need it again. Every time you start the PCW up with that disc, all printout will automatically appear in the new font. In some of the novelty faces (especially Vaudeville) the character widths vary quite widely. To avoid uneven spacings between characters in a word, it is best to use proportional spacing for printing, which is easy in LocoScript. Draft quality text is unaffected by FontGem, and appears in the ordinary style.

A few snags

The only real frustration with FontGem is that you can't mix different fonts in the same document. The font is determined only by the startup disc you use and to change font you have to rerun FontGem to create a whole new version of the startup disc and restart your PCW with that.

Having said that, there are still ways to mix fonts after a fashion. For example, you could print a whole load of fancy headed stationery using Vaudeville, and then use these as you would any other preprinted paper. If you work from a "Business 1" or even a standard font disc, you just print normally onto the paper with its Vaudeville heading, making for an eye-catching contrast.

FontGem's abilities can really add some spice to your parish newsletter and make LocoScribed documents seem much more interesting. At £19.95, it's fantastic. ▲

HACKER'S DELIGHT

FontGem actually "hacks" into the system files that make up LocoScript or CP/M (whichever is being used), with the result that whenever you start your PCW up with the hacked version, it's like having a new program. FontGem modifies the parts of the program that determine the shapes of the characters that the printer produces, which is how it works automatically with all programs.

While this is safe enough in practice for seldom-changing CP/M (and all word processors and programs running from there), LocoScript is a bit different. New versions are being released (eg. for LocoMail and LocoSpell), and at the moment FontGem won't work with them. However, Gemini assure buyers of FontGem that any upgrades necessary will be available free of charge.

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to
An Old Tyme Witch Hunt
at
The Olde Barn, Somerton
on
Hallowe'en Night

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Runner Up: a ducking stool complete with 30' deep pond

Wooden Spoon: a boring piece of paper showing a range of interesting characters in the PCW's Olde English font, like this.

SEE YOU THERE!

▲ Olde English font as used from LocoScript

PLUSES
- ☐ Once installed, you can totally forget it's there
- ☐ Genuinely useful range of fonts available
- ☐ Works with LocoScript files as well as CP/M
- ☐ All LocoScript's print size and style options can be used
- ☐ Doesn't take up any extra disc space

MINUSES
- ☐ You can't mix different fonts in the same document
- ☐ You have to have different work discs for each font you want to use
- ☐ Won't currently work with LocoMail or LocoSpell

RANGE OF FEATURES ■■■■□ OVERALL SPEED ■■■■■
EASE OF USE ■■■■■ DOCUMENTATION ■■■□□

8000 PLUS VALUE VERDICT ■■■■■

BOOK LOOK

Computers are busy saving vast hectares of Amazonian rain forest as the "paperless office" takes over. But judging by the unstemmed tide of books arriving for the PCW, the jungles are now under threat from publishers of tutorial books on just how to use the paperless office. As keen ecologists, we assess the environmental impact of the latest offerings.

THE AMSTRAD PCW 8256/8512: MORE THAN JUST A WORD PROCESSOR

£9.95 ● Ian B. James ● Cambridge Microcomputer Centre

The title of this book latches onto Amstrad's marketing slogan for the PCW, and it aims to help those who are thinking of branching out from LocoScript and perhaps trying to computerise the operations of a small company.

The books starts off with a gentle introduction to convince you that computers aren't that frightening after all. Unfortunately it gets carried away, and in between eminently sensible advice on programming like "unless you really have to, DON'T DO IT!" tries to explain how to use assemblers and binary arithmetic.

But after page 100 it really gets going. James picks the commercial areas of databases, spreadsheets, accounts, payroll and explains why you would want to use them. He chooses 6 programs to illustrate his examples with: Sage Payroll, Sage Accounts, Cardbox (a database), WordStar (a word processor), SuperCalc 2 (a spreadsheet) and DR Graph (for producing graphs from spreadsheets).

It is nice to have concrete examples rather than generalities, and the level of detail discussed allows readers to appreciate fully the time and effort that will be required to get going with such a program. On the whole, James manages to avoid getting bogged down in too many technicalities of specific programs.

The specific choices of program are an acceptable base for examples, although DR Graph is only of marginal interest. Also, while Cardbox is fine in many ways it cannot sort its data into alphabetical order. It would have been nice had some time been spent discussing the pros and cons of the six flagship packages that are used for the examples, to give readers an idea of the choices they have.

Overall, **More Than Just A Wordprocessor** is a very fine introduction to business computing for PCW owners. James doesn't try to hide potential problems – it's a book you ought to read after your local dealer has just convinced you how easy it will be with his products.

8000 Plus Value Verdicts

More Than Just A Wordprocessor
£9.95, ISBN 0-94682-791-5
■■■■□

15 Hour WP with WordStar
£4.95, ISBN 0-86082-758-5
■■□□□

15 Hour WP with the Amstrad
£4.95, ISBN 0-86082-760-7
■■■■□

15 HOUR WORD PROCESSING USING WORDSTAR
15 HOUR WORD PROCESSING USING THE AMSTRAD WORD PROCESSOR

£4.95 ● Anna Ruthven ● The National Extension College

Why "15 hours", you may be moved to ask? Judging from the "Books by the Same Author" section, which includes "15 hour word processing with the BBC Micro" and "15 hour word processing on your gas cooker" (sorry, misprint), it must be the length of time Ms. Ruthven takes to churn out another title in the series.

These books both teach word processing skills to newcomers, one with the CP/M program WordStar and the other with good ol' LocoScript. Both books are very similar in format, and are divided into three sections: elementary, intermediate and advanced. They are purely word processing tutorials, and don't give background advice on operating the computer.

The LocoScript title is generally very good. It starts with a fairly foolproof guide to copying discs with DISCKIT, and progresses to go through all the simple editing functions like using bold, italic and underline styles in documents. The keys you have to press to perform any action are clearly labelled in a sequence of comprehensive steps. Pictures of the screen illustrate the state of things at strategic points so that readers know they are on the right track.

The title is very much aimed at beginners, and the "advanced" section is very half-hearted. Headers and footers, two of LocoScripts's murkier regions, are covered in just 12 short pages.

If you are just setting out with LocoScript then you will gain a lot from this title, but you will soon outgrow it. Still, at £4.95 that can't be a bad deal.

It is puzzling that the WordStar 15 hour book is much worse than the LocoScript one. At first, all the examples and advice are given in separate versions for IBM PC users and CP/M (ie. Amstrad PCW) users, but after a while the CP/M examples are dropped. More seriously, the methodical progress that works well in the LocoScript title is not as well used here. Complex commands (like the "dot" commands") are introduced very early, which is confusing. Whereas the LocoScript book can be read on its own, the WordStar one seems to be more suitable for course organisers to base a series of lectures on, where personal tuition is planned. ▲

PRINTING WITH CONFIDENCE

The standard PCW printer is capable of outputting a wide variety of different text styles. LocoScript users are accustomed to being able to freely mix italic, bold, superscript and underlined text in sizes ranging from 17 to 10 characters per inch.

However, when using CP/M to print files, the options seem to shrink. Pressing the [PTR] key means you can control whether you use draft quality or high quality print, but other than that you seem to be forced to use 10 characters per inch standard text all the time.

But it isn't that bad really; with a little trickery, and knowing the black art of how to read the Amstrad manual, the printer can be made to use its full range of styles even from CP/M.

The great escape

Consider for a moment what happens when you ask the printer to print a document. The PCW sends the characters down the connecting cable in a long stream, and the printer faithfully puts them on the paper. Now and again, the PCW sends a special character which doesn't produce any print but for example tells the printer to move to a new line.

It's these special characters that we are interested in. One character, known as "escape" or "ESC" for short, is very commonly used. When ESC is sent to the printer it means, "don't print the next few characters because they are an instruction to change print style". Exactly what the change is depends on the characters that immediately follow the ESC. For example, they might mean "print all text from now on in italics." In order to make the printer do what you want, you first have to find out what the correct command is that you have to send, and then you have to work out how to send it. The second part of this is easiest done from BASIC, which has a special command called "LPRINT" to send characters to the printer.

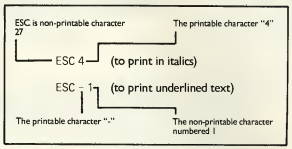
Stealing the manual's secrets

Appendix II of the PCW CP/M manual gives all the information that you need to control the printer, although doesn't tell you what to do with it. Pages 126 to 137 list the functions that the printer does, and with each one is the code needed to activate that function.

For example, look at page 132: the top heading is "Italic text". Under that it says that to print italic characters you send ESC 4 to the printer, and to revert to normal you send ESC 5. This means that after the ESC 4, all text printed appears in italics until the ESC 5 is printed, after which it's back to the usual typeface.

Most of the special codes are in the form ESC followed by 1 or 2 letters or digits. These following characters can mean one of two things depending where they are, and unfortunately the PCW manual doesn't often distinguish between them.

The character immediately following the "ESC" is an ordinary printable character. However, if there is a second following character, usually 1 or 0, then that refers to a non-printable character whose number is 1 or 0 respectively. For example:



See the box on "What characters are" for an explanation of printable/non-printable characters, and all will become clearer with some examples.

WHAT CHARACTERS ARE

Boffins out there will all know that characters are really the dreaded "bytes" that computer magazines always go on about. All this means is that computers only understand numbers, so each printable character is assigned a number between 0 and 255.

Not all the numbers between 0 and 255 correspond to actual printable symbols – after all, there are only 10 digits, 52 alphabet letters and a few punctuation marks. These are assigned numbers ranging upwards from 32. The numbers below 32 are assigned to non-printable or "control" characters. In particular, the character that everyone refers to as ESC is character number 27 to the PCW.

Since we're using BASIC as the way to handle characters in this article, it's as well to know how it copes with characters when printing. To send a printable character like "M" to the printer, the BASIC command is

```
LPRINT "M"
```

However, ESC as we have seen is not printable but is known as character number 27, and the command to send that is

```
LPRINT CHR$(27)
```

This means, "send character 27 to the printer" – CHR$ is BASICese for "character number".

Doing the hard work

Armed with the information from the manual on what codes control which printer functions, you now have to get them from your head to the printer. The easiest way to do this is from BASIC. Run BASIC from your CP/M master disc, and it will give you its "Ok" prompt.

LPRINT is the command to send characters to the printer. Try typing

```
LPRINT "Hello from 8000 Plus" [RETURN]
```

and the message appears in draft quality normal print on the printer. Now let's make it come out underlined. Looking at page 133 of the manual, underlining is done by ESC - 1. The hyphen is a simple printable character, and the 1 is a non-printable code. ESC is non-printable code 27, so type

```
LPRINT CHR$(27)+"-"+CHR$(1) [RETURN]
```

Now try the "Hello ..." message again, and it comes out underlined.

Effects can be combined, so you can print in italics at the same time as underlining. Again looking at the manual page 132 the required code for italic text is ESC 4. Type

```
LPRINT CHR$(27)+"4" [RETURN]
```

and then try the hello message again to see what happens.

You can reset the printer to normal with the [PTR] key (see the "In an emergency" margin note), so now try a few other effects from the manual like proportional spaced text, or superscripts.

The settings that you do this way using BASIC will stay in effect until you reset the printer, even if you leave BASIC. For example, if you set up italic text and then enter your CP/M word processor or spreadsheet, files printed from there will appear in italic text.

Unfortunately, many CP/M programs set the printer up the way they want for printing. For example, no matter what text size you start off in, NewWord will normally print in 10 pitch. Also, SuperCalc resets the printer before it starts, so you always get draft quality text out of it.

```
CP/M Plus  Amstrad Consumer Electronics plc

v 1.4, 61K TPA, 2 disc drives, SIO/Centronics add-on, 368K drive M:

A>basic

Mallard-80  BASIC with Jetsam   Version 1.29
(c) Copyright 1984  Locomotive Software Ltd
All rights reserved

31597 free bytes

Ok
LPRINT "Hello from 8000 Plus"
Ok
LPRINT CHR$(27)+"-"+CHR$(1)
Ok
LPRINT "Hello from 8000 Plus"
Ok
LPRINT CHR$(27)+"4"
Ok
LPRINT "Hello from 8000 Plus"
Ok
system

A>
```

```
Hello from 8000 Plus

Hello from 8000 Plus

Hello from 8000 Plus
```

The printer commands being used and the effects they produce

In an emergency

All this changing print styles can make you end up with a confused printer that can't just print normally. To get back to the usual setup, press the [PTR] key and you will see the printer status line at the bottom of the screen. Use the cursor-right key to highlight the RESET option, and press [+] This resets the printer, and [EXIT] gets you back to CP/M.

Saving your changes

As experienced users of the PCW printer well know, the paper is prone to jam as it goes through the rollers, or some other more human error means you want to reset the printer and start all over again.

Unfortunately, when you do reset the printer (from the [PTR] command line in CP/M) the settings you have made will all be lost, and it will revert to the standard draft quality, 10 characters per inch text that you normally get. It's very awkward to go into BASIC and redo things.

The solution to this is to send the printer the command `ESC d`, which freezes the current state of the printer as the one to be used after a reset is done. So, after you have made all the changes you want to the normal print settings, just before you leave BASIC type

```
LPRINT CHR$(27)+"d"
```

Make sure you type a lower case "d", or the command will be ignored. Now you can reset with impunity, without losing your hard work.

The exception to the rule

Most of the printer codes in the manual are in the form "ESC p 1", and we've covered use of these in some detail. But some, like that on page 131 for Condensed text (17 pitch) just says "SI". Just to the right of SI is the number 14 in brackets – this is Amstrad's way of telling you that SI is a non-printable character whose code number is 14.

So to change to 17 pitch text, just send the single specialcharacter SI to the printer. Do this from BASIC by typing `LPRINT CHR$(14) [RETURN]`. There's no need to send ESC or any other characters.

To sum up then, the rule for reading the printer commands from the manual is this: single characters like "p" or "1" are to be sent to the printer as they stand, using LPRINT from BASIC as described earlier. Words like "SO" and "DC4" stand for special non-printable characters whose number is printed alongside them when they are first referred to in the manual. Don't try to send the characters "S" and "O" to the printer, but send SO's number, 14, instead, using CHR$(14) in BASIC's LPRINT command. ▲

AUTOMATING THE PRINTER CHANGES

Typing all these commands from BASIC works fine, but is very laborious. There is a CP/M utility called SETLST which does it faster, but is harder to set up.

It works in a similar way to the SETKEYS program covered in the last issue of 8000 Plus. Set up a simple text file containing the characters to be sent to the printer, and SETLST then sends this file to the printer, as will be revealed.

The only problem is how to type non-printable characters into this text file. The up-arrow key ([EXTRA]+; on the keyboard) introduces a non-printable code, which is typed between single quotes, so non-printable character number 1 is typed as↑'1'. Since ESC is used so often, this can be typed by its name, again between single quotes after and up-arrow: ↑'ESC'.

For example, suppose you always want to work in high quality, proportional spaced text from CP/M. Set up a text file called, say, HQPS.PTR, containing the lines

```
↑'ESC'p↑'1'
↑'ESC'm↑'1'
↑'ESC'd
```

The first line sends ESC p 1, to set proportional spaced print, and the second line sends ESC m 1 for high quality text.

Now put a disc in the current drive with the file SETLST.COM on it and type `SETLST HQPS.PTR [RETURN]`. From now on, text going to the printer from CP/M (eg. when you print a file by saying `PIP LST:=filename`) will appear in high quality proportional spaced print.

The virtue of the last line of the HQPS file, sending ESC d, is that it saves the high quality, proportional spaced setting as the default. If you have to do a printer reset subsequently, after paper jam for example, then the printer will revert to this state rather than its usual draft mode 10 pitch text.

If you save HQPS.PTR on your startup disc, with SETLST.COM, you can use the PROFILE.SUB autostart method to set your PCW printer up automatically whenever you start CP/M.

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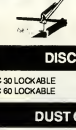

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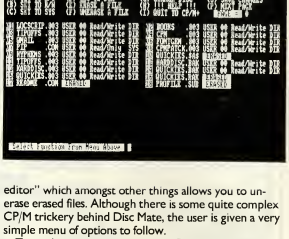
Disc Mate is a collection of programs to make working with discs just that bit easier on the PCW. Just out is a new version which can work on both A- and B-type drives on PCW's. First and foremost is a "directory editor" which amongst other things allows you to un-erase erased files. Although there is some quite complex CP/M trickery behind Disc Mate, the user is given a very simple menu of options to follow.



Two other programs come with Disc Mate: COPYFILE does much what its name suggests, and provides the file copying facilities of CP/M's tortuous PIP command in easily digestible tablets. It is particularly useful for owners of PCW 8256's who want to copy files between floppy discs. Finally, ZIPDISC is a bit of CP/M wizardry which claims to speed up your disc operations by up to 20%.

The documentation with Disc Mate is scanty, just an inlay card, but the programs don't really need much explanation. A file un-erase program, specially one as good as Disc Mate, is an essential part of anyone's toolkit – not having it is like driving a car without having a spare wheel. Can you afford not to have one?

PLUSES
- ⊞ Allows you to recover erased files
- ⊞ Very simple on-screen instructions aimed at ordinary people
- ⊞ COPYFILE program gives you file copying without PIP's problems
- ⊞ ZIPDISC speeds up your disc usage by up to 20%

MINUSES
- ⊟ Documentation is very brief
- ⊟ Doesn't have a full disc sector editor to please hackers (or is this a plus point?)

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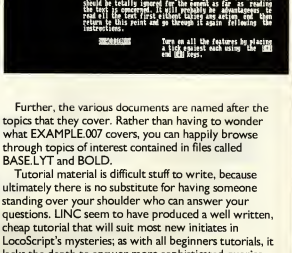
The natural way to learn LocoScript is through a disc based tutorial system, which is just what this package from LINC provides. It is a disc of LocoScript documents that cover all the topics of LocoScript, which you read as you please, and follow the instructions on the screen.

The advantage of this method over a manual, no matter how well written and illustrated, is that you can actually try out the functions as you read about them, and see the effects incorporated into the text that you are reading.

LINC's offering should be compared to LernLoco from Minerva, a similar LocoScript tutorial that we reviewed last month. Happily, LINC's package is both £2 cheaper and much better written. The level of discussion is aimed at adults, and it manages to be informative and friendly without being patronising.

The screen is very thoughtfully laid out, so that when the text says "now press [f1] for the menu, the on-screen text is arranged so that the menu doesn't obscure any of it.



Further, the various documents are named after the topics that they cover. Rather than having to wonder what EXAMPLE.007 covers, you can happily browse through topics of interest contained in files called BASE LYT and BOLD.

Tutorial material is difficult stuff to write, because ultimately there is no substitute for having someone standing over your shoulder who can answer your questions. LINC seem to have produced a well written, cheap tutorial that will suit most new initiates in LocoScript's mysteries; as with all beginners tutorials, it lacks the depth to answer more sophisticated queries from experienced users.

For beginners and intermediate users, it's definitely a good buy.▲

PLUSES
- ⊞ Adult level of writing in the text
- ⊞ Lessons are all clearly named so you can spot which is which on the directory
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- ⊞ Only costs £14.95

MINUSES
- ⊟ Doesn't provide clever tips for more skilled users

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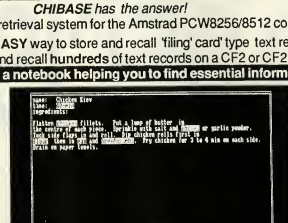

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HARD DECISIONS

Ben Taylor reveals how adding a hard disc to your PCW can increase its word power.

Sizeable files

When you store a file on a floppy disc you will have noticed that the minimum file size you can have is 1k, even if there are only a couple of characters in the file. Because of the massive size of hard discs, their "block size" is larger – typically 4k for a 10MB disc and 8k for 20 MB disc.

So if you copy a 1k file to a 20MB hard disc it gobbles up 8k of space. A little statistics shows that the average space wasted by a file is 4k. Even if you have 1000 files on the disc, so wasting 4MB, you still have 16MB full of useful data.

When you think about it, 4k per file wasted out of 20MB is actually a lot more economical than 1k per file wasted on a 170k floppy disc!

New WEB Software

The software reviewed in this article is current at the time of writing. Timatic are currently negotiating for new LocoScript driver software which may be available shortly.

The main marketing drive for the PCWs is purely as word processors, ie. replacements for electric typewriters, but many owners now know otherwise. The PCW is in fact a powerful computer that can meet the needs of many small businesses. Running accounts, holding mailing lists and keeping the staff happy with games after the pubs close on Friday afternoon are all part of its remit.

One irritating feature of the PCWs, which owners of the 8256 are all too aware of, is that the top disc drive, known as 'A', can't store very much data. A major program like an accounts package probably won't fit onto it, and some such programs need 5 discs to hold all their constituent parts!

Knowing this, Amstrad launched the PCW 8512 which boasted a second disc drive that could hold four times as much data as the first one. Almost all serious business users now use this model, and it certainly makes life much easier: programs run faster, and on the whole there is no more annoying disc swapping as you work.

However, even this doesn't solve all the problems. If you have several major programs that you use, you soon find the number of floppy discs building up alarmingly. With program discs and data discs for databases, spreadsheets, word processors, accounts and payrolls you can soon find yourself with 50 discs to choose from. "Ah," you say, "my database disc is full up. I'll just put the file on the spreadsheet disc for the time being. I can rearrange things later." But do you? And can you find the file again later?

The solution to your troubles could be a hard disc, sometimes known (for historical reasons) as a "Winchester".

WEB (Winchester Expansion Box) £649+VAT ● Timatic ● 0329 221735 20MB only.

Hard discs are bulky things, and take up much valuable desk space. Timatic have cleverly built the box that their WEB lives in so that it doubles up as a support stand for your PCW. The screen is then raised to eye level, and a special moulding holds the keyboard at a convenient angle.

Installing the WEB is very simple. Put the box on the table and put your PCW on it. There is a mains lead for the hard disc unit, and a ribbon cable that plugs onto the expansion port on the back of the PCW. If you are using other peripherals that need the same slot, they can plug into a new slot on the back of the WEB unit itself, and be used as normal.

▲ Timatic's WEB in its distinctive PCW support stand

WHAT IS A HARD DISC?

To all intents and purposes you can think of a hard disc as an enormous floppy disc, storing possibly hundreds of times as much data.

Disc sizes are measures in 'K's. One K is about one thousand characters, or roughly 170 words of a typical word processed document. Each side of a disc in the 'A' drive of a PCW can hold 170K, or about 90 pages of a typical novel. The disc in the 'B' drive can hold four times as much data, or 720K to the technically minded.

Hard discs usually come in two sizes, 10MB and 20MB. 10MB is 10,000 K, roughly equivalent to 60 ordinary A type floppy discs or 14 B discs. Never again will you have to shuffle through a pile of discs on your desk to work out which one holds the file you want.

A second, and possibly more important advantage, is speed. You may well have twigged by now that programs run a lot faster when stored in the M drive than when they run from the A or B drives, but sometimes the time taken to transfer files to the M drive is not worth the effort.

Hard discs work almost as fast as the M disc, and of course when you turn the power off you don't lose all the files stored there. Looking at the test times in the review, if your program does a lot of writing to and from disc (as many account packages do), it could run 5 times faster than if you only use floppy discs to store it on.

In general, hard discs are wonderful things. There is only one drawback – the cost. But given that 50 floppy discs cost £250 anyway, maybe it's not that much after all. One final catch is that some software cannot recognise disc drives other than A, B and M – it would be wise to check with your supplier that your current software will work correctly from a hard disc.

There are no hardware modifications to make, it takes five minutes to fit, and works with both 8256s and 8512s. If you need to you can disconnect the hard disc and use the PCW by itself again.

Once the hardware is installed, there are a few software modifications to do. The first thing you have to do is decide whether you are going to need to store LocoScript files on the WEB. If you don't want to, then life is easy. Whenever you turn on your PCW, run a small program to initialise the WEB (this can be in your PROFILE.SUB file), and you can then use it just like any other disc. The PCW knows it as drive C.

One potential flaw in the WEB is that it needs around 1k of CP/M's work space to run properly. Certain programs which need absolutely all of the workspace may therefore not work with the WEB, but these are few and far between. It would be as well to check that your software will works with Timatic's disc before buying.

LocoScript catch in the WEB

If you want to store LocoScript files on the WEB, things are a bit harder, and this is the WEB's real weakness. In normal LocoScript (version 1.2), you can't access any drives other than A, B and M, but Timatic have devised a way to make LocoScript read and write to their disc.

An installation program is provided which modifies your LocoScript startup disc – the modifications will work with all versions of LocoScript that Timatic know about. The effect of this is that the WEB is called drive M by LocoScript, and can store 4MB of files (not the full 20MB of the disc). Unfortunately this means that the ordinary M drive (the RAM disc) cannot now be used at all in LocoScript. Another side effect is that you can't start LocoScript directly from its disc, but you have to start up CP/M first, initialise the WEB and run it from there.

If you choose this option it also affects how CP/M sees the WEB. The disc becomes split into two partitions, 16MB called drive C that only CP/M can see, and 4MB of drive D that both CP/M and LocoScript can see.

The main reasons for buying a hard disc are to run large CP/M programs that use masses of data, so it may be that the slight inconveniences of running LocoScript on the WEB are only a side issue anyway.

PLUSES	MINUSES
⊟Provides a convenient support plinth for the PCW	⊟LocoScript can only access 4MB of the disc
⊟Full 20MB of store available	⊟The M drive cannot be used from LocoScript
⊟Comes with backup software to help you store files	⊟Takes up 1k of your CP/M workspace – might cause very occasional trouble
⊟Simple and fast to set up	⊟You have to specially initialise the disc from CP/M before use, even when using LocoScript

RANGE OF FEATURES	■■■■□	OVERALL SPEED	■■■■□
EASE OF USE	■■■□□	DOCUMENTATION	■■■□□

8000 PLUS VALUE VERDICT ■■■□□

USING A HARD DISC

Hard discs aren't quite like floppy discs to use. You don't go into Dixons and buy a pack of 5 hard discs, which is no bad things since they cost hundreds of pounds each.

When you buy a hard disc, such as the ones covered in this article, you get a weighty box with a power lead coming out of it. Contained in the box is the hard disc, together with its power supply and the rest of the hardware and software required to make it usable. You never see the hard disc itself – it is a very sensitive beast, so you can't remove it from its housing. Although physically very different from the familiar 3" floppy discs, in software terms a hard disc is absolutely identical to use. The floppies on an 8512 are called A and B, and the memory disc is M. If you own a hard disc it will be called C, and you just refer to it as you would A or B. For example, to copy a file (using PIP) from the hard disc to the B drive you would type

```
PIP B:=C:FILE.ABC
```

10 MB Hard Disc
£449 + VAT ● ASD Peripherals ● 03224 49235 (20MB version coming by the year end at £599 + VAT)

The ASD hard disc is installed in much the same way as the Timatic WEB, ie. a ribbon cable slots onto the expansion port on the back of the PCW without needing any permanent hardware modifications. It doesn't provide a moulded support case as the WEB does, but the disc unit is solid enough to take the PCW monitor on top of it. Again, existing peripherals that use the expansion slot can still be used.

The mains power supply is plugged into a socket on the back of the hard disc, and you can plug your PCW into a second socket, leaving only one actual mains lead for the whole system. Once going, CP/M uses the hard disc just like the A, B and M drives, referring to it as C. The performance figures for capacity and speed are shown in the 'Head to Head' table elsewhere in this article.

The big difference between ASD's disc and the WEB is in the software. Where Timatic have modified LocoScript and CP/M to work with their product, ASD have persuaded Locomotive software, authors of LocoScript itself, to do the dirty work for them.

With the hard disc come special versions of LocoScript and CP/M which you put onto your startup floppy discs – now whenever you start the PCW up it automatically knows that you have a hard disc. More importantly, since the disc is sanctioned by Locomotive it will go on

▲ The ASD 10 MB hard disc

DISC HEALTH CARE

You need to treat hard discs a bit differently from floppies. They must be put on a firm surface, kept flat and not moved while in use. They can be very sensitive to jolts and jars, and you run the risk of writing off the whole disc (and its data of course) if you are rough with it.

Secondly, as with any type of disc you MUST keep backup copies of all files on the hard disc, especially in view of their sensitivity to bumps. Since they hold so much data, it is not feasible to take a copy every day. The trick is to transfer onto floppies only those files that you have recently changed,so you'll have a copy of everything somewhere. Keep your discs in chronological order for ease of retrieval.

In theory "tape streamers" are the best way to back up hard discs. They are like extra-long cassettes and can store a whole hard disc very fast, but (a) they can cost as much as the hard disc itself, and (b) none are yet available for the PCW, so that's that.

Since hard discs can contain so many files – literally thousands – you will find it helpful to split files into groups for convenience. This means getting to grips with CP/M's USER command, and generally knowing CP/M in more depth. Unfortunately neither manual of the two hard discs reviewed gives much help in this area, and you'll know better by now than to read Amstrad's manual.

working if you buy LocoMail and LocoSpell, and you can be sure that any new versions of LocoScript will run on the ASD hard disc. With a £500 investment, more than the cost of the original PCW, that must be a very important factor.

Getting organised

When you power up your ASD hard disc it always asks you to input the date and time. Although a bit of a bind occasionally, this is there for a good reason. Whenever you create a file (in CP/M, not LocoScript) the creation date is stored with it.

If you later do a directory listing with `DIR [FULL]`, the creation times are shown too. This means that you can spot files you've recently created or changed by their 'time stamps', as the jargon goes.

Unlike Timatic, ASD don't provide any software to help you back up hard disc files onto floppy discs, although some will be available within a few weeks. However, the ASD manual reveals a little documented feature of PIP to help you back up your files. If you give the command

```
PIP A:=C:*.*[A]
```

then PIP 'archives' (hence the 'A' suffix) the hard disc. What this means is that all the files that have been changed in any way since the last time the archive command was given are copied to the A drive as a backup, but unchanged files are not copied at all.

The Third Option

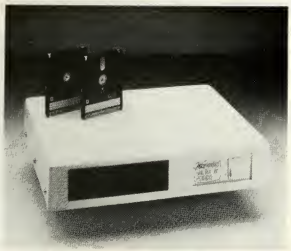
A third hard disc system is available for the PCWs, although it isn't covered in this article since it is for slightly more specialised use.

The **Amstore** is a 20MB hard disc from Northern Computers (0928 35700), which is really designed for use with networks of computers. Whereas the ASD and Timatic discs plug into a single machine, the Amstore has some electronic trickery which allows it to be accessed from up to 119 computers at the same time. Users of each computer can access files stored by users of other computers on the network, so allowing files to be "shared" around the office without throwing floppy discs across the room.

In addition, these networked computers need not all be PCWs – if you have an office of PCWs, IBM PCs and others, they can all join the network together. The main drawback is that since the computers access the hard disc through special gadgetry, the speed of file retrieval is nothing like as fast as with the two hard discs reviewed here.

A nice frill on the Amstore is a "print spooler" – a program to allow you to carry on working in CP/M even while long files are printing out. Normally you have to sit and watch the printer do its work. However, you will not be able to use the Amstore with LocoScript.

The Amstore is not an off-the-peg system like the ASD or Timatic discs, but because of its network capabilities is specially installed for the requirements of individual customers. Prices start at around £1400 + VAT, depending on the number of computers you want to network together.



PLUSES

- **Software officially supported by Locomotive**
- **CP/M files are automatically time stamped to help keep track of things**
- **All the disc initialisation is done automatically**
- **Simple and fast to set up – and all from the one mains socket.**

MINUSES

- **You'll have to wait a month or two if you need a 20MB version**

RANGE OF FEATURES ■■■■□ **OVERALL SPEED** ■■■■■
EASE OF USE ■■■■■ **DOCUMENTATION** ■■■□□
***8000 PLUS* VALUE VERDICT** ■■■■■

HEAD TO HEAD: HOW THEY COMPARE

Apart from storage capacity, there's not much to choose between the hard discs if you are only going to use CP/M, although the ASD software is a little more polished than Timatic's. For serious LocoScript users, though, the ASD disc provides by far the best software service.▲

	Price (exc. VAT)	File-space available (in MB)	Time to open and close a file 100 times (seconds)	Size of smallest file	Max. no of files allowed
PCW "A" drive		0.17	238	1k	64
PCW 8512 "B" drive		0.72	221	2k	256
PCW 8512 "M" drive		0.37	14	2k	128
ASD HD10	£449	10	28	4k	1024
ASD HD20	£599	20	Untested	8k	2048
Timatic WEB	£649	20	35	8k	2048

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34. TOTAL Contents of Any Field
35. PERFORM Programmed File Updates
36. FAST Selection, Sorting & Filing
37. FIELDS can be Repeated 127 times
38. MAXIMUM 39 x 127 Fields/Records
39. UP to 15,000 Records per File
40. LOGIC Y/N Fields use Only 1 BIT
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44. RE-DEFINE Field Parameters

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69. ANALYSE Stock Levels by Four Analysis Codes
70. AUTOMATIC Group Price Adjustment by %age
INVOICING for Quick and Accurate Billing
71. DISPLAY Invoice/Credit Note before Printing
72. PRINT Invoice on Plain Paper with File Copy
73 SETTLEMENT Discount Selectively Calculated
74. VAT Rates mixed on one Invoice
75. CHOICE of 3 Standard Sales Prices or Manual
76. PRICE Netting for Background Discounting
77. MANUAL, Narrative & Discount Lines anywhere
78. STOCK Availability Check during Invoicing
79. PROFIT Statistics by Customer Rep & Product
80. COMPARE Sales Figures with Previous Year
81. PRICE LIST print for Customer Distribution
82. OAY BOOK report for Invoices/Credit Notes
SALES LEOGER for immediate Credit Control
83. UPDATE from Invoicing Oay Book
84. POST Invoices, Credit Notes, Cash, Journals
85. CASH posted On Account or by Transactions
86. TRANSACTIONS retained on File until cleared
87. BATCH input with Edit & Agree before Update
88. PART Pay Invoices, and/or set as Disputed
89 AGED DEBT Totals automatically calculated
90. STATEMENTS printed On Demand on Plain Paper
91. AUDIT Control by Batch, Account and Overall
92. INSTANT Selective Account Enquiry on Screen
PURCHASE LEDGER for Suppliers' Accounts
93. FULL Purchase Ledger facilities like Sales
94. REMITTANCE AOVICES to detail Invoices paid
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GETTING INTO PRINT

John Hughes starts his BASIC programming course

Computer programming is easy! So easy, in fact, that a few years ago it was estimated that over five million schoolchildren all over the world had learned how to program in the BASIC programming language, an advanced form of which is supplied with your PCW.

There are many advantages in learning how to program. First, although there are literally thousands of excellent commercial programs on sale, they obviously can't meet all your possible needs. Second, 8000+ prints some useful programs from time to time, and you will get much more out of them if you understand how they work and how to modify them to fit your own circumstances. Third, writing even a short program which is 'all your own work' will teach you far more about how your PCW works than reading any number of books and articles. Finally, it will do wonders for your standing down at the pub.

Loading BASIC

Many small computers have BASIC all ready to go when they are turned on, but on the PCW you will have to start off by loading it in. Switch the computer on and put your copy (never the original!) of the CP/M Plus master disc into the disc drive - this is the disc which has LocoScript on one side and CP/M on the other, and is the same one which you use when formatting discs.

When the A> prompt appears, type `BASIC` and press RETURN or ENTER. The BASIC language will be loaded off the disc into the computer, and the screen will display a start-up message to confirm that everything is ready.

```
CP/M Plus  Amstrad Consumer Electronics plc
v 1.1, 61K TPA, 1 disc drive, 112K drive M:

A)basic

Mallard-80  BASIC with Jetsam   Version 1.29
(c) Copyright 1984  Locomotive Software Ltd
All rights reserved

31597 free bytes

Ok
```

BASIC as a Calculator

Once BASIC has been loaded into the computer, you can use it immediately as a sort of oversized pocket calculator.

For example, to add the numbers 20 and 40, simply type

```
PRINT 20+40
```

using either capitals or small letters and press RETURN or ENTER. The answer will be instantly displayed on the screen, with 'OK' after it to show that the computer is ready and waiting to do something else. (Unlike a pocket calculator, you don't need to press the '=' key - indeed, it won't work if you do).

The word `PRINT` is simply a BASIC command meaning 'Put something on the monitor screen'. There is a slightly different command which we shall meet later which is used to send output to the printer.

All arithmetical operations can be carried out in the same way as the sum we have just seen, except that some of the symbols used in computing are not quite the same as those used in ordinary arithmetic: division is marked with '/' and multiplication by '*'.

All the usual rules of precedence apply; that is, any expressions in brackets are worked out first, followed bymultiplication and division, with addition and subtraction last. Remembering this, enter the following for yourself, ending each line with Return or Enter:

```
PRINT 4+5*10
PRINT (4+5)*10
```

If you have entered everything correctly, the first sum should give the answer 54, the second the answer 90.

Unless you are a very careful typist, you may already have had your first BASIC error message - probably 'Syntax error'. All this means is that you have typed in something which the BASIC language doesn't understand - perhaps you typed PRUNT instead of PRINT, or perhaps you forgot that the '=' sign should be left out. Don't let it worry you; there is no possibility at all of a keyboard error damaging your computer or affecting the BASIC language which you have loaded in.

A different sort of error arises from the ways in which the computer applies the rules of arithmetic. For example, if you try

```
PRINT 24/0
```

the computer will print a prim 'Division by zero' to warn you that any answer it manages to come up with is meaningless.

Saying Hello

Just as BASIC tries to work out, or 'evaluate', any arithmetical expression which occurs to the right of the command word PRINT, it will also output on the screen any message which is enclosed in double inverted commas. For example:

```
PRINT "Hi there!"
```

will cause the words 'Hi there' to appear on the screen; the quotation marks themselves do not appear.

This may not seem nearly as useful as using BASIC as a calculator; however, when we get on to more advanced programming, you will see that the ability to print messages on the screen can be a very useful one indeed.

Printing Hello

A close relative of the PRINT instruction is LPRINT. It functions in exactly the same way as the PRINT command, except that the output is sent to the printer, rather than to the screen. Try it with some of the examples given above to see how similar the two commands are.

Your first program

So far, although we have certainly been using BASIC, we have not done any real programming. This is because writing a program implies giving the computer a series of instructions which it can then carry out on its own, one after the other.

In this sense, a computer program is no different from the sort of program which is used by a washing machine, a microwave oven or a dishwasher; in each case, a series of commands is set in motion, and the machine takes the appropriate action to obey each one.

In BASIC, these commands take the form of a series of lines each of which begins with a unique line-number and contains a single instruction written in a form which the machine can understand. (Actually, there are circumstances under which a line can contain more than one instruction, but this need not worry us here).

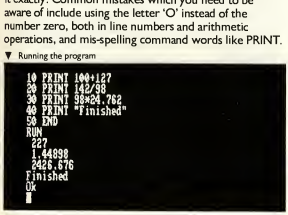
```
10 PRINT 100+127
20 PRINT 142/98
30 PRINT 98*24.762
40 PRINT "Finished"
50 END
```

Our first program illustrates the principle of the thing. It will carry out three different arithmetical operations, one in each of the lines numbered 10, 20 and 30, and will place each of the answers on the screen. Line 40 will print 'Finished' at the bottom, and line 50 has the command END, which tells BASIC that there is nothing more to do.

When the program is run, the lines will be obeyed (the jargon term is 'executed') in ascending order of their line numbers. What those line numbers are is irrelevant, as long as they are numbered in the order we want them to be obeyed: they could as easily have been numbered 1, 2, 3 or 100, 150, 200. However, it is usually a good idea to choose numbers which are not too close together, for reasons which will become clear later.

Try typing the program in, making sure that you copy it exactly. Common mistakes which you need to be aware of include using the letter 'O' instead of the number zero, both in line numbers and arithmetic operations, and mis-spelling command words like PRINT.

▼ Running the program



When you have typed in a complete line, double-check that you have made no mistakes; if you have, go back to correct them with the cursor and delete keys in the usual ways, and press RETURN or ENTER only when you are certain that there are no errors. When the whole program has been entered, type in the word RUN and press RETURN; the computer should respond as shown.

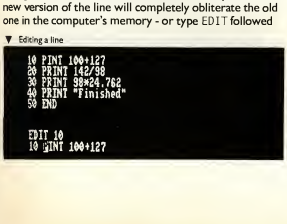
Your first bug?

If you find that you have made a mistake in any line after you have pressed RETURN, you can still correct it as follows: either retype the whole line again correctly, as though it had never been entered in the first place - the new version of the line will completely obliterate the old one in the computer's memory - or type EDIT followed by the number of the line which you want to correct.

Let's illustrate this with an incorrectly entered version of the program in which the command PRINT in line 10 has been entered as PINT. The command EDIT 10 has then been entered, and the computer has responded by displaying that line on the screen, with the cursor at the beginning of it.

To correct the mistake, simply move the cursor to the appropriate place, type in the missing R and press RETURN. The corrected version of the line will overwrite the original in the computer.

▼ Editing a line



If a program doesn't work

Even the simplest programs can cause difficulties, and finding out what is wrong can be surprisingly tricky. The following may give you some ideas of places to look:

Line numbers - make sure that the lines are numbered in the order you want them to be carried out.

Using the right symbols - check especially that you haven't used a lower-case 'l' instead of the number '1', or a letter 'O' instead of a zero.

If you get a 'Syntax error' message while a program is running, the faulty line will be shown on the screen with the cursor already on it, to help you correct it.

Reviewing your work

As you become more familiar with BASIC, there will inevitably be occasions - especially when you are writing longer programs - that you will want to be able to review your work on the screen.

This can be done with the command LIST. Type it in, and the whole program will be printed on the screen in ascending order of line numbers. (There is a similar command, LLIST, which will list the program on the printer).

Using LIST and EDIT as appropriate, you can call up your program onto the screen and make whatever corrections or alterations you want. You could, for example, change the message which is to be printed when the arithmetic has been finished, or alter the calculations which are to be performed. You could even insert whole new calculations or messages of your own.

Remember that BASIC always executes lines in ascending order of their line numbers, even if this is not the same as the order in which you originally typed the lines in. As far as the computer is concerned, it makes no difference at all if you enter a program by typing Line 10 first, Line 20 second and so on, or by typing Line 30 first, then Line 10 and Line 20 next.

Next time we shall look at some ways in which we can move beyond the simple printing of messages and results of calculations by using variables. In the meantime, try to become as familiar as possible with the commands we have already met, so that you can enter and correct a simple program without getting too bewildered.

When you have finished using BASIC, you can simply return to CP/M by typing in the command SYSTEM; this will remove BASIC from the computer and put you back into CP/M Command Mode, with the usual A> prompt. ▲

BASIC Commands

The following are the commands we have met so far, with a brief description of what they do:

END - To mark the conclusion of a program

LIST - Prints a copy of the program on the screen

LLIST - Prints a copy of the program on the printer

PRINT - Prints on the screen either a message enclosed in inverted commas or the result of an arithmetic operation

LPRINT - As PRINT, but using the printer

PLAYTIME

Tony Flanagan ventures into some of the recent games releases

THE VERY BIG CAVE ADVENTURE
CRL ● £14.95 ● 01 533 2918

This game is very much an adventure spoof with all the puns, corny jokes and illogicality one would expect. The precise object of The Very Big Cave Adventure isn't exactly clear, but then again, perhaps that doesn't matter. What you explore are rather bald scenarios where anything can happen. The rampaging bull who guards a gully (eye,eye, something fishy here) is easily deceived. That's because, of course, he's a gully-bull. Get it?

The first building you are led to inspect could very well be a wizard's lair or some other such magical abode. But if so, why does it have 'VACANT' on the door? That's because it's a loo of course, so don't forget your pre-decimalisation penny! A current one just won't do.

Along the way, there are various items to collect, anything from a pair of wellies to a rather lethal bomb. (Throw it at the bull and then cringe at yet another wicked pun!) These can be examined closely by keying in 'EXAMINE', whereas 'I' will provide an inventory of all that you're carrying.

The game apparently understands most simple English sentences. Maybe it's just that I can't write proper sentences, but I found the response 'Sorry, this thick computer doesn't understand that', and other stock responses, a little tedious after a while. Still, the program's knowledge of the odd 'French' word was impressive, as was its punitive remedy, which certainly left a bad taste in my mouth !

The Very Big Cave Adventure loads in two parts, which means that at the end of part one you must SAVE your position onto another disc and thereby take all that you've gathered with you onto even more ridiculous encounters.

If you don't like to take your games too seriously, or you want to take a rest from more sober adventures, this game should provide you with a reasonable amount of fun. The inlay logorrhoea describes the game as 'cretinous', 'criminally moronic' and 'sillier than any computer programme has a right to be'. The Very Big Cave Adventure is clearly not quite as good as that would suggest, but it tries!

PLUSES	MINUSES
⊟ Off-beat and genuinely amusing	⊟ Repetitive and often unhelpful responses
⊟ Refreshingly unpredictable	⊟ Scenarios lack detail and atmosphere
⊟ Nicely irreverent in tone	

ATMOSPHERE	■□□□□	CHALLENGE	■■■■□
INTERACTION	■■■□□	VALUE VERDICT	■■■■□

MOUNTAIN LEADER
CPC MINEHEAD ● 0643 4851

Another offering from the same stable as Fantasy Quest, this game is not the most exciting. The aim, if you hadn't already guessed, is to reach the summit of a particularly treacherous mountain. As leader of the expedition, it's your job to plan the route, choose party members and see that equipment and supplies are transported efficiently from one camp to another.

There are seventy-seven members in your party, made up of eighteen climbers, thirty-four sherpas and twenty-five porters. There are seven camps in total, each of which consists of several sections. Consequently, movement from one camp to another can take several days. How quickly you progress depends on several factors: weather conditions, the number of climbers in your party and whether you've managed to transport the necessary equipment.

The first screen details the day number, weather conditions and four possible courses of action: route, carry, move and summit. The first task is to create a route form one camp to another. Once the various sections of each camp have been negotiated, you can then begin to move equipment and personnel. An assault on the summit, however, can only be made when camp seven has been reached.

Screen two displays the Leader's Log, which details what action has been taken, the movement of equipment and personnel and the number of loads that have been carried. A subsequent screen gives an overview of the whole expedition by displaying the distribution of personnel and equipment at each of the seven camps.

Mountain Leader is not really a one session game, unless you're into marathons or insomnia! Conveniently, you can SAVE your position and return to the game at intervals which makes things much more civilised.

There are no graphics to accompany the game which means that you have to rely on the text alone to generate atmosphere, which is asking a great deal to say the least. It's more of a game for the armchair mountaineer rather than the average Joe Soap like me, but this is by no means meant as a criticism. As a strategy game, Mountain Leader isn't bad at all.

PLUSES	MINUSES
⊟ Fairly realistic	⊟ Lacks atmosphere
⊟ Good exercise for the grey matter if nothing else	⊟ Requires tenacity
⊟ Easy to get into	⊟ Not really very exciting
⊟ A worthy challenge	

GRAPHICS	□□□□□	LASTING APPEAL	■■□□□
ADDICTIVENESS	■■□□□	VALUE VERDICT	■■□□□

FANTASY QUEST

CPC Minehead ● 0643 4851

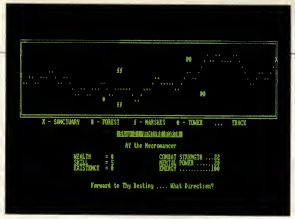
Fantasy Quest is replete with all the ingredients one would expect from this type of game - magical powers, mythical beasties and marvellous locations. The aim of the game is to obtain the SCEPTRE, but to succeed, you first have to find the ORB, six RINGS as well as build up enough rating points. In Fantasy Quest, heroism is on trial...well, sort of.

To start the game you key in your name and then choose which role you want to assume: necromancer, mentalist, berserker, soldier, or hermit. This brings you to the game's main map. This is a rather uninspired depiction of the world you must move in and reveals four main locations - sanctuary, forest, marshes and tower - indicated by various keyboard characters.

Movement can be made in six different directions by pressing the appropriate keys, which, unfortunately, are about as responsive as a dead canary. The track along which you travel is indicated by a row of dots. Keep to it and you're safe, but don't expect excitement! It is only by diverging from the track that you can accumulate treasure, skill or rating points.

Below the map your current rating points are categorised according to wealth, skill, existence, combat strength, mental power and energy. Should any of the last three reach zero then you can kiss your nether regions goodbye. There's plenty of blood in this game as you contend with a veritable cocktail of mythical beasties - minotaurs, thunder lizards, wyverns, centaurs and so on. And watch out for lightening bolts!

Fortunately, you have a range of spells at your disposal and your sword can be made to strike head, body or legs.



The main map. You're the YEN (top left) about to enter a world of mystery and magic. As you can see, the graphics are just knockout !!!!

Progression to any of the four main locations will reveal a secondary map. The forest map, for example, reveals both a castle and a lake. Here, however, there is no track and consequently, no security. If you're lucky, you might chance upon a faery ring which will transport you to a spot nearer the castle. But there are also less fortuitous areas which can sap your strength. The various sanctuaries, however, revitalise your power as well as providing a temporary refuge from the the nightmare world outside.

The dreary graphics (if you can call them graphics) leave a lot to be desired and the game offers nothing that hasn't been done before. Still, there's plenty of incident and a good deal to explore. A distinctly average game.

PLUSES	MINUSES
⊞ Blood and gore aplenty	⊟ Unresponsive keys
⊞ Lots of "action"	⊟ Abstract graphics
⊞ Variety of locations	⊟ Character movement slow

GRAPHICS	■□□□□	LASTING APPEAL	■■■□□
ADDICTIVENESS	■■■□□	VALUE VERDICT	■■■□□

BOUNDER

Gremlin Graphics ● £13.95 ● 0742 753423

Bounder is another bouncing ball game which makes excellent use of a simple idea. What you have to do is direct a tennis ball across a network of hexagonal slabs, taking care to avoid the various obstacles in your path. At the same time, a whole range of nasties are trying to puncture you once and for all! Collision with walls, mountains or nasties causes you to lose one of your seven lives.

However, you're not completely on your own. There are various aliens and devices to help you out, from moving platforms to bonus bugs. Slabs bearing the arrow sign make you lighter which means that you can stay in the air that much longer and therefore bounce further.

The keys are very responsive and it's quite easy to manoeuvre the ball in mid-air so as to move diagonally when this is called for. Fortunately, there is also a pause facility which makes it possible to plan a route through the matrix of hexagons from your aerial view.

Slabs bearing a question mark provide a mystery bonus, but these are mostly detrimental. Between each level there's a bonus stage in which you get points according to the number of question marks cleared.

The game has an impressive 174 downward scrolling screens, and the graphics - detailed, sharp and varied - are superb. Panels indicate the number of jumps available for the bonus section, the number of balls available, the level attained and the number of bonus points obtained.

This conversion by Pennsoft also permits a joystick option. Bounder is very playable and one of the more impressive games on offer at the moment. It might not tax your brain but it's a nifty diversion from more serious stuff.

PLUSES	MINUSES
⊞ Stylish graphics	⊟ Slow at totalling bonuses
⊞ Nice scrolling effect	⊟ Too much trial and error
⊞ Good manoeuvrability	
⊞ Unpretentious	
⊞ Element of unpredictability	

GRAPHICS	■■■■■	LASTING APPEAL	■■■□□
ADDICTIVENESS	■■■■□	VALUE VERDICT	■■■■□

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GETTING PERSONAL

QMAIL

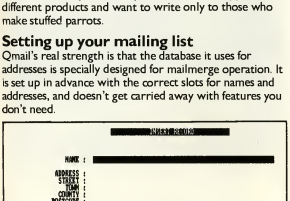
£29.95 ● Proteus Computing ● 01-748 2302

A mailmerger, as veteran readers of issue 1's Grand Mailmerge Showdown will know, is a program to produce bulk mailshots from an address list and a form letter, in true Readers' Digest style.

Qmail is a newcomer to the scene, aimed specifically at LocoScript users who have a complex mailing list that needs sorting and selecting before use. This would be useful, for example, where you have a list of suppliers of different products and want to write only to those who make stuffed parrots.

Setting up your mailing list

Qmail's real strength is that the database it uses for addresses is specially designed for mailmerge operation. It is set up in advance with the correct slots for names and addresses, and doesn't get carried away with features you don't need.



The address record template that exists before you even have to do any work

Aside from the name and address, there is room for up to 5 "user defined" slots per name. These might contain the balance outstanding on a customer's account, or the phone number, or just general notes.

Finally, and most importantly, you can define "attributes" for a person. Each name can be tagged with up to 15 or so labels from from a range of 260 (A0 to Z9), which can stand for anything you like. Suppose you are trying to manage an advertising agency, and you want to categorise companies by what they produce. You might number stuffed parrots as "P0", and stuffed gerbils "G0". Then you can address letters to manufacturers of either one specifically, or you could do a general stuffed animal mailshot and produce a print run covering both parrot and gerbil stuffers.

One nice touch is that as you enter names into the mailing list they are automatically sorted into alphabetical order. Qmail seems to know how names are written, so it will correctly sort by surname entries like "Mr. A. Aardvark" and "Len Zapalowski".

Writing the form letter

Qmail only reads letters prepared with LocoScript, although inevitably it doesn't actually run from within LocoScript. You have to start up CP/M, run Qmail, and restart LocoScript if you need to make any corrections.

Almost all LocoScript print styles can be used when Qmail processes a document, and also the centring and justification commands work. Qmail has what is called "automatic rejustification", which means that if it inserts special text into a letter that varies in length from person to person, then it can manage to reformat the paragraph so there are no untidy gaps or short lines.

Each item stored in the database has a name associated with it, like "Address" or "Amount due". To insert the relevant words into the letter, you just type its name into the LocoScript document in "ReVerse Video" (□RV).

Running off the mailshot

To produce a print run, you first prepare a letter using LocoScript, and set up the mailing list using Qmail. There are now several ways forward. You can pick one of your mailing list databases within Qmail and select the addresses you want to mail – for example, all those who are tagged with a certain attribute (like P0, our parrot stuffers). Attributes can be combined to produce complex selections like parrot stuffers who also manufacture feather dusters.

You can opt not to use a mailing list, but run the mailmerger directly. In this case, as the document is processed Qmail pauses to ask you what each database field should be as you come across it.

QMAIL VS. LOCOMAIL

LocoMail, produced by the authors of LocoScript, sets a high standard, so what can Qmail offer to better it?

LocoMail can't easily be used to select a subset of a mailing list for specialised mailshots, since it has no equivalent of Qmail's database. On the other hand, it can do numeric calculations in documents (to insert totals in invoices, for example) which Qmail can't.

On balance, for mailmerging that is just a straight run-off from an address list, or one that needs numeric calculations, LocoMail is a clear winner. If you need to pick and choose from a complex address list, Qmail shines through.

The verdict

Qmail is a worthy challenger to LocoMail. The address database is simple and well designed for mailmerging, and overall, it's ideal for mailmerging if you have a complicated address list.

The only real drawbacks are that it can't read files from word processors other than LocoScript, and that it can't do arithmetic to customise invoices. The manual is a bit too dense for comfort, and the novice reader will find it a struggle. Some example letters are on the disc to show how it is done. ▲

PLUSES

- ⊞ **Reads LocoScript files**
- ⊞ **Prints all LocoScript commands properly**
- ⊞ **Well-designed database is ideal for mailmerging**
- ⊞ **Database "attributes" provide advanced selection capability**

MINUSES

- ⊟ **Manual is lacking in examples**
- ⊟ **No numeric calculation capability**
- ⊟ **Doesn't read non-LocoScript files**

RANGE OF FEATURES ■■■■□ **OVERALL SPEED** ■■■■□
EASE OF USE ■■■■□ **DOCUMENTATION** ■■□□□

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SPELLBOUND

Casting aside his Oxford English Dictionary, Ben Taylor looks over Locomotive's new spelling checker

LOCOSPELL

£39.95 ● Locomotive/Amstrad ● See special offers

A spelling checker doesn't fulfil quite the same role that a dictionary does for conventional writing, where you would just look up words that you know you can't spell. Computer spelling checkers take a more realistic outlook on life. People who can't spell usually don't know they can't spell, so never look the offending words up. More to the point, 90% of "spelling errors" are really typing errors, and the spelling checker just acts as a proof reader.

No matter how well you spell, or how well you type, you need a spelling checker if anybody apart from yourself is ever going to read your word processed literary gems. A word processor without its spelling checker is like a Sumo wrestler without his, er, loin cloth.

LocoSpell is a spelling checker designed to work with the PCW's LocoScript word processor. The software was written by Locomotive, authors of LocoScript, and the dictionaries that it uses were designed by Longman's, so it's got an impressive pedigree.

Compared to other spelling checkers on the market, LocoSpell is very sophisticated. Usually when a spelling checker comes across a word it doesn't know, it just pauses and asks you to correct it. LocoSpell actually suggests alternatives you might use. Not only that, but the suggested correction is matched to the case of the original word – upper case, lower case or mixed case.

Getting going

Reading the LocoSpell manual is slightly bewildering at first. Since you can now buy several add-ons for LocoScript (eg. LocoMail or LocoSpell), there are four

WHAT CHECKERS WON'T DO

Spelling checkers are really proof readers, picking up typing errors. But there is an important difference between human proof readers and computer spelling checkers – spelling checkers can't pick up words that are spelt correctly but used in the wrong way.

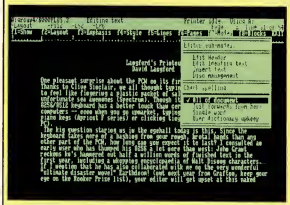
For example, some common mistakes are to misuse "there" instead of "their", or "stationary" for "stationery". By extension, if you mistype a word so that the wrong version is still a legal word, like typing "poser" when you mean "power", the checker will happily tell you all is correct.

Making spelling checkers that can understand the context of a word and so give you a more intelligent correction is surprisingly hard to do. This is what Artificial Intelligence researchers have been trying to do for the last 25 years – if you can write a foolproof program to do it, you're going to be very, very rich. Why not write and tell us about it; we'd like to be rich too.

LocoSpell i

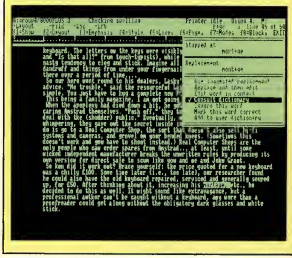
Everyone makes mistakes. Even world-famous, best-selling, etc. author David Langford has trouble spelling "mortgage" properly – probably as a result of the rates 8000 Plus pays its columnists. See if you

1 LocoSpell starts operating while you are editing a file normally. Press the [f7], "modes", key and you are faced with the choice of whether to check the entire document, from where you are to the end, or just the current word.



2 After the menu choice is selected in the usual LocoScript way (highlight the option and press [ENTER]), LocoSpell searches through the document and stops whenever it comes to a word it doesn't know. It then suggests a correction, and gives you several courses of action.

Most of the choices are obvious. Pressing [ENTER] just accepts LocoSpell's suggested correction, or if it's a word you will never use again you could just 'Ignore' it. If it's a word you use often, like "Wombat", pressing A and [ENTER] adds the word to the dictionary so it will be recognised in future.



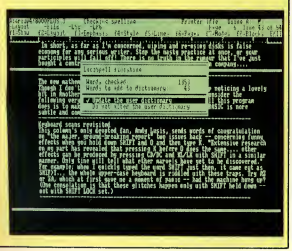
ll in Action

can spot it in his column on page 43 if you fancy yourself as a proofreader.

Here's how you would go about using LocoSpell to run over your work:

3 Maybe you want to change the word, but LocoSpell's suggested correction is wrong. You could directly edit the text, or you could consult the dictionary. Press C, and [ENTER], and a list of about 20 words pops up which are similar to the misspelled word. Use the cursor keys to highlight the option you want (you can scroll the list by going off the top or bottom) and press [ENTER].

4 The word is now replaced in the document. If the new word is significantly different from the original, LocoScript will reformat the file and continue checking. Other wrong words are treated in the same way, until at the end you are (a) told how many words have been checked, and (b) asked to confirm that the words you wanted to add to the dictionary should indeed be added.



pages of dense type explaining all the options on how to configure your startup disc properly. If you use both LocoMail and LocoSpell, there isn't much free space on the disc to play with.

LocoSpell comes with a choice of two dictionaries that work with it. One has 32,000 words and the other 77,000. Which one you use depends on what kind of PCW you have and how much trouble you want to go to. In normal operation you keep the dictionary on the M drive for speed of access, but unfortunately the 77,000 word version is too big to fit on an ordinary PCW 8256. The 32,000 word dictionary fits on the same side of the startup disc as the LocoScript/LocoSpell software, so is immediately available when you start up the system. LocoSpell automatically copies it to the M drive for you. If you want to use the larger dictionary, you will have to copy it manually to the M drive, or in the case of 8256 owners, copy the file you are checking to the M drive and use the floppy disc drive to hold the dictionary.

The large dictionary, obviously, just contains a better range of words.

Where dictionaries fear to tread

In addition to the "system" dictionaries, as the built-in ones are known, you can define "user" dictionaries too. These are smaller dictionaries that you build up as you use LocoSpell, which contain words that you personally use a lot but which aren't in LocoSpell's usual dictionary.

THE SPEED TEST

Since LocoSpell is an adjunct to LocoScript, and works as you scroll through a document, you aren't going to be able to spell check a region of text faster than LocoScript can scroll through it.

As a test, we took a 1350 word document and spell checked it. First, we timed LocoScript scrolling normally through the document. Then we spell checked it with the small and large dictionaries, in each case compiling a user dictionary containing all the words LocoSpell queried. Finally we timed LocoSpell scrolling through the document with the new user dictionaries in operation too, so it never stopped for a spelling error.

For the tests, performed on a PCW 8512, the system dictionaries were on the M drive, and the documents and user dictionaries were on a floppy disc.

Scrolling through with LocoScript:	**27 s**
Checking with 32,000 word dictionary:	**88 s**
Checking with 77,000 word dictionary:	**120 s**

These might include proper names (like your own name and address), or technical terms if you are in a jargon-ridden profession like law or computing.

Building up dictionaries is a gradual process. As you spell check a document, LocoSpell pauses at words it doesn't know. If it is a word you will use regularly in the future, like "vindaloo", you can opt to store it in the user dictionary. This special dictionary is stored in the same group on the LocoScript disc as the file you have just checked, and if you spell check that document later, or any other document in that group, the special words will be remembered as correct.

Usually, each LocoScript group can have its own user dictionary, although there are ways to ensure that you have one user dictionary that serves all the groups on the disc. If you need to, you can edit your user dictionaries to amend misspelled entries or remove words you no longer need.

Often you use words that you will never use again, like people's names, which LocoSpell will flag up as errors but which aren't worth saving in the dictionary. You could grin and bear it, and press "I" for "ignore" whenever Locospell stops, but there is a better way. LocoSpell provides a special code that can be inserted into LocoScript documents as any other LocoScript code can. Type [+]SC (for "sic") at any point in a word, and LocoSpell will ignore it.

For classical scholars

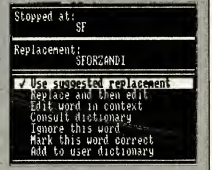
LocoSpell's [+]SC code is short for "SiC". As generations of sufferers of Latin O-level know, *sic* is Latin for *thus*. Used in documents, *sic* means "I've spelled it thus deliberately, so leave it alone." Amazing what you can learn from computer magazines, isn't it?

FAMILY FUN

When you buy LocoSpell, unknowingly you are also buying a fascinating fun-for-all-the-family game.

When LocoSpell comes across an unknown word in a document it suggests an alternative to go in its place; this can provide hours of amusement for idle brains. For example, as we checked over our Langford's Printout column this month, LocoSpell didn't like the word "SF" (the abbreviation for Science Fiction). The suggested replacement was SFORZANDI.

If you discover any other gems of unwitting wit, why not write and tell us?



Good news, bad news

LocoSpell is certainly an invaluable addition to LocoScript. It's sophisticated and very effective, and runs at a fair speed despite LocoScript's inherent sloth.

The fact that you can spell check individual paragraphs in a document as you go is a real boon. Also, if you want to, you can quiz the dictionary for the spelling of an individual word – just give it the first couple of letters and scan through the choices.

The only real complaint is that when you "consult" the dictionary to look up a spelling you aren't sure of, you are given a choice of 20 or so closely matching words: scrolling through this menu is very, very slow if you want to look at choices off the top or bottom of the range.

The manual, a point Locomotive often get flak for, is on the whole very good. The start, about how to sort out your system discs, is very confused, and a clearer explanation about which user dictionaries are being used with which documents would have been nice.

Unlike some other spelling checkers, when you choose to 'ignore' a word that LocoSpell flags up you are not given the choice to ignore it for evermore in that document. You can get around this by choosing to add it to the user dictionary, and then editing out of the dictionary at the end of the run, but that's a bit messy.

Finally, you can't edit the main system dictionary to remove spellings you don't like, such as various "-ize" endings to words. But overall these are all small niggles and it's another excellent professional package from Locomotive.

PLUSES

- **Runs totally from within LocoScript**
- **Can do small sections of a file, eg. the last paragraph typed**
- **Suggests alternatives for the misspelt word**
- **Reformats the text as it makes corrections**
- **Provides the much-missed LocoScript word counter**
- **Has a comprehensive 60-page manual**

MINUSES

- **The manual is very confusing on how to actually make up the start-of-day discs**
- **Can't edit the system dictionary to remove spellings like "emphasize"**
- **Very slow at scrolling the dictionary window for correct spellings**

RANGE OF FEATURES	■■■■■	**OVERALL SPEED**	■■■□□
EASE OF USE	■■■■□	**DOCUMENTATION**	■■■□□

***8000 PLUS* VALUE VERDICT** ■■■■■

How LocoSpell compares with the rest

There are already at least three spelling checkers on the market, some of which will read LocoScript files although they run from CP/M. This means you have to leave LocoScript, start up CP/M, run the checker and then restart LocoScript to print out the corrected version.

This may sound tedious, but it does have potential advantages. First, remember that LocoSpell cannot process files any faster than LocoScript can scroll through them, which imposes a fairly large overhead on big files. To do 10,000 words or so you may well find using a CP/M spelling checker considerably faster.

Second, if you own (or buy at a later stage) another word processor then you can use the same spelling checker with that program. Otherwise you will have to fork out for a new spelling checker.

PROSPELL

£29.95 ● Arnor ● 01-684 8009

The market leader (until now), and deservedly so. Prospell can check LocoScript files, WordStar files or ASCII files (as produced by Tasword or other wordprocessors). It runs after you've finished the writing – you just give the finished file to Prospell, and it goes through much as LocoSpell does offering you the option to change words or store them in the dictionary for future use. Unlike Locospell it doesn't offer you a suggested correction for the word in question.

Prospell directly alters the file that it is checking, so you don't have to go over it afterwards to incorporate the changes. However, if the alterations made would alter the positions of the ends of the lines you will have to go back into your wordprocessor and reformat the file, otherwise when you print it out you will get strange line lengths.

One extra feature that Prospell boasts is a crossword-cum-anagram solver. It can be asked to print out all meaningful anagrams of a given word, or to find all words that match a certain template like `K_ROSIN_`. Unfortunately it will only come up with words in its dictionary, not the names of really obscure South American amphibious reptiles.

8000 Plus Value Verdict : ■■■■□

COMPUTER ONE SPELLING CHECKER

£34.95 ● Computer One ● 0223 862616

Reviewed at some length in the issue 2 of 8000 Plus, the Computer One spelling checker is a Prospell clone. It can correct LocoScript , WordStar and simple text files, and do the same anagram/crossword solving functions.

It has a dictionary twice the size of Prospell (64,000 words compared to 30,000), but runs slightly more slowly.

8000 Plus Value Verdict : ■■■■□

TASSPELL 8000

£16.50 ● Tasman ● 0532 438301

Tasspell 8000 is specifically aimed at owners of the Tasword word processor. Users of that package can then run Tasspell on the file they are editing as they edit it. For those who don't own Tasword, it can also check single files without having to go through Tasword.

It only works on simple text files, and to use it on LocoScript files you need to convert them to ASCII format with the 'f7 Make ASCII file' option first of all. It runs impressively slowly, doing about 200 words a minute. This makes even LocoScript look fast, which is really saying something. Still, at least it's cheap. ▲

8000 Plus Value Verdict : ■■□□□

LANGFORD'S PRINTOUT

A page foolishly handed over to SF author DAVID LANGFORD who just happens to own an AMSTRAD

Real Writers do it with two

One pleasant surprise about the PCW on its first release was the keyboard. Thanks to Clive Sinclair, we all thought typing on a low-cost machine had to feel like fingering a plastic packet of salami (ZX80/81), or squashing unfortunate sea anemones (Spectrum). Though it's a bit rattly, the 8256/8512 keyboard has a better touch than certain far more expensive computers – even when you go upmarket, typing can feel like pushing down piano keys (Apricot F series) or clicking tiny retractable ballpens (IBM PC).

The big question staring us in the eyeball today is this. Since the keyboard takes more of a bashing from your rough, brutal hands than any other part of the PCW, how long can you expect it to last? I consulted an early user who has thumped his 8256 a lot more than most: John Grant reckons he's hammered out half a million words of finished text in the first year, including a whopping encyclopaedia of Walt Disney characters. If I mention that he has also collaborated with me on the very wonderful "ultimate disaster novel" Earthdoom! (out next year from Grafton, keep your eye on the Booker Prize list), your editor will get upset at this naked self-publicity and cut me off in mid *(would I do that? - Ed)*

Keyboard scans revisited

Though I don't usually bother with BASIC, I couldn't help noticing a lovely bit in Another (Official) Magazine, which asks you to "consider the following very simple program: 20 FRED = 30 ...When RUN, all this program does is to make the variable FRED equal to 37." Clearly BASIC is more subtle and complicated than I thought.

This is what famous pseudonym John Grant reports. As he came up to the half-million-word mark, two alarming things could be seen happening to his keyboard. The letters on the keys were visibly wearing off (sighs of relief and "Is that all?" from touch-typists), while the keys themselves had a nasty tendency to clog and stick. Imagine all the horrible gunge and dandruff and things from under your fingernails that must collect down there over a period of time...

So our hero went round to his dealers, Lasky's, and asked their sage advice. "No trouble," said the resourceful Lasky's man. "The solution's simple. You just have to buy a complete new PCW8256 system, that's all."

This being a family magazine, I am not going to record what Mr Grant said.

When the apoplexy had died down a bit, he got in touch with compassionate, caring Amstrad themselves. "Push off," they told him soothingly. "We don't deal with the (shudder) public." Eventually, worn down by threats and whimpering, they gave out the secret inside information. What you need to do is go to a Real Computer Shop, the sort that doesn't also sell hi-fi systems and cameras, and grovel on your bended knees. (Sometimes this doesn't work and you have to shout instead.) Real Computer Shops are the only people who can order spares from Amstrad... at least, until some wicked independent manufacturer breaks the unwritten rules by producing its own version for direct sale to scum like you and me and John Grant.

So how did it work out? Brace yourself: the price quoted for a new keyboard was a chilly £100. Some time later (i.e., too late), our researcher found he could also have the old keyboard repaired, serviced and generally souped up, for £50. After thinking about it, increasing his mortage, etc., he decided to do this as well. It might sound like extravagance, but a professional author can't be caught without a keyboard, any more than a proofreader could get along without the obligatory dark glasses and white stick.

After relating this awesome chronicle, "John Grant" added that he was investigating a company called Saga which reportedly sells stick-on letters to replace those worn off Spectrum keys by unwholesome practices. "Seems they're OK on the Amstrad, except of course you don't get the special words for the function keys. I wouldn't be surprised if the company diversified into Amstrad stickers...."

There are a couple of ways of looking at all this. One is that it gives you something to aim for: only when your keyboard disintegrates will you know you've equalled the output of a real (if somewhat workaholic) author! Alternatively, you can bask in smugness at the thought that at least you got your first keyboard thrown in as part of the package: incredible though it seems, IBM buyers have in the past found that the keyboard (as well as the monitor) is an expensive accessory, not included in the quoted price. There was a joke about the IBM staff canteen where lunch cost a mere £1.50, plus a pound for the knife, and another for the fork, and another for the plate....

The thing which really worries some pessimistic PCW users isn't the keyboard (you can always type very very lightly and invest in a few sets of the above-mentioned stickers) but the disks. The fact that they cost three times as much as the 3" disks for my other computer (and only have half the capacity, unless you own a Drive B) can be lived with. But it seems to be accepted that 3" disks are kept in production almost solely by the Amstrad market. Will Alan Sugar sandbag his existing users – as he's done before, in other ways – by abandoning 3" drives altogether? Will the disks then become unobtainable? Is the Pope a Scientologist? Rather than make up science-fictional answers to all these queries, I'll merely suggest that it mightn't be a bad idea to stock your fallout shelter with a few spare boxes of CF2s from some discount merchant.

Of course, you might say, you can always use disks again and again. I'm terrifically nervous of doing so: after a few years of word-processing, I know all too well that almost anything may be needed again. For example, a while ago I wrote a short story, titivated it, put in lots of rude bits, cut some of them out again, printed the whole thing, and sold it. I had a clean master copy of the text (photocopied from the print-out – quicker, and cheaper in the long term, than wearing out the PCW printer and ribbon by doing two), plus spare copies of the magazine where it appeared. A clear case for re-use of disk space! Then a Swedish magazine asked to reprint the story, but there was a snag – could I edit it down by 20% to fit their space restrictions? Which meant keying it in again....

(Also: master copies get spoilt and need reprinting; and from time to time one has second thoughts about one's golden prose; and I've even incorporated short stories into novels. In each case, keeping a copy on disk saves a lot of work.)

In short, as far as I'm concerned, wiping and re-using disks is false economy for any serious writer. Stop the nasty practice at once, or your particples will fall off! There is no truth in the rumour that I've just bought a controlling interest in a major CF2 distribution company....

The new mathematics

This column's only devoted fan, Andy Lusis, sends words of congratulation on "the major, ground-breaking report" two issues back – concerning funny effects when you hold down SHIFT and O and then type K. "Extensive research on my part has revealed that pressing K before O does the same... other effects can be produced by pressing CD/DC and KL/LK with SHIFT in a similar manner. Only time will tell what other marvels have yet to be discovered." For example: when I quickly typed the word SHIFT just then, it came out as SHIFoT... the whole upper-case keyboard is riddled with these traps. Try AZ or ZA, which at first gave me a moment of panic – had the machine hung up? (One consolation is that these glitches happen only with SHIFT held down – not with SHIFT LOCK set.)

FUN AND GAMES, MUSIC AND TIME PERIPHERALS FOR **THE AMSTRAD 8256/8512**

PROGRAMABLE JOYSTICK CONTROLLER

This is the most advanced joystick interface for the PCW yet. It is fully programable and will emulate any of the keys on the PCW keyboard, within basic and CP/M.

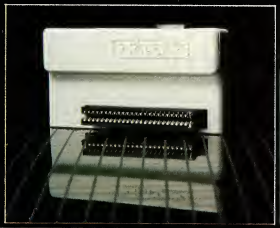
It is supplied with disc based redefining software which programs the interface to emulate any combination of 5 keys. This makes it compatable with all games software which require up to 5 keys of input i.e. up, down, left, right and fire.

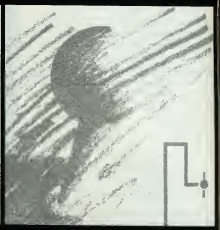
The interface can also be used with some business software and could be programed for moving up, down and selecting from menus etc.

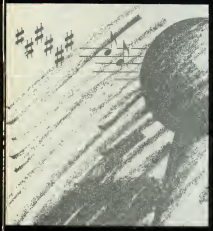
The joystick port can also be simply read directly from basic or CP/M without using the supplied software.

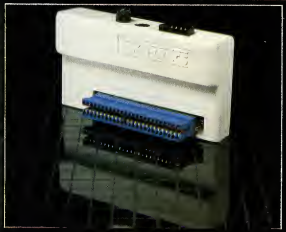
It has a through connector for other interfaces to be plugged on and will work with both normal and rapid fire type joysticks.

£24.95 including VAT









PROGRAMABLE JOYSTICK AND SOUND CONTROLLER

The joystick and sound synthesiser has all the features of the joystick controller above, plus the added features of a 3 channel sound synthesiser and a 5 bit input/output port.

The 3 channel sound synthesiser adds a totally new dimension to your PCW, allowing you to program/create music with harmonies over a full 8 octaves and an infinite range of other sounds.

The unit, if fitted with the popular AY-3-8912 sound chip, as fitted to the Amstrad CPC range of computers, allows you to create music and realistic sounds. To achieve this, complete control of tone, noise, volume, envelope period/shape is available on all 3 channels.

The input/output port can be programed to control external equipment. To accommodate this, 5 control lines, ground and +5 volt references are made available via the 9 way 'D' joystick connector.

£39.95 including VAT

REAL TIME CLOCK MODULE

This amazing module has the following features:-

The time of day with seconds, minutes and a 12-24 hour format.

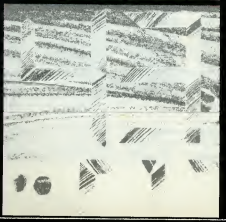
A calendar with days of the week, date, month and year and there is automatic end of the month recognition and automatic leap year compensation.

An alarm facility from once per second to once per day.

The module can be used for automatic stamping of discs and any applications which require periodic real time control.

There are 50 bytes of battery backed RAM and all data is retained when power is removed from the computer.

£34.95 including VAT



HOW TO ORDER

DKTronics products are available in all good computer stores, or may be obtained direct by telephone quoting your Barclaycard/Access number.

dk'tronics

POWER BEHIND YOUR AMSTRAD

DKTronics Limited
Gorleston, Great Yarmouth, Norfolk NR31 6BE.
Phone 0493 602926 (24 Hours), Telex 975408.

PICK A DRIVE ANY DRIVE

UNIFACE

£49.95 ● Silicon Systems ● 061 848 8959

In our first issue we looked at a number of ways of upgrading your PCW 8256 by adding a second drive. One option is an interface which fits in the hole normally occupied by the lower 3" drive. Silicon Systems has joined the market with 'Uniface', an interface which allows you to connect most 3" or 5¼" drives in place of the Amstrad offering.

Uniface Make-Up

Uniface is a small circuit board with two multi-pin plugs on one end and a metal facia plate bracketed to the other. A socket fits through this panel and is used to connect the unit to an external disc drive. A small light shows when the unit is active, and is cleverly positioned to dot the 'i' in the Uniface logo.

If the face fits...

To install Uniface you first have to remove the panel below the top drive on your 8256. The black metal facia can be levered off with a knife and you then have to cut six lugs supporting a plastic panel behind the facia. The Uniface manual recommends a Stanley knife and a light hammer for this, but you may find it easier to use a hacksaw blade.

Once the panel has been removed you switch the PCW off and remove the back of the monitor. Uniface can then be fitted into place and fixed with a small 'T' bar and a nut inside the case. This is the most fiddly part of the installation and requires six and a half inch fingers or a hexagonal biro. Silicon Systems are considering supplying a free suitable ball-point with every Uniface! There are two leads already prepared inside the PCW to connect to a second drive, or to the Uniface, and once this is done you can refit the back of the monitor case and connect the lead from your external drive.

It's worth mentioning, since it's not given sufficient coverage in the Uniface manual, that a PCW TV tube can retain a very large electrical charge even hours after disconnection from the mains. Do be careful not to touch any of the high voltage components around the end of the tube when you have the back of the monitor.

Running a Second Disc

You have to turn the second drive on before your 8256, and have a disc in the drive, and when you then turn it on the CP/M sign-on message should show two drives found.

Three programs are supplied with Uniface. The first is a formatter which will format the B: drive with 40 or 80 tracks and on one or both sides. This works very well and is a lot quicker than the formatter in DISCKIT.

The second program allows you to copy files from one disc to another and more flexibly and more quickly than PIP does it. Finally, there is 'ZIPDISK', a utility which speeds up all disc operations by about 20%.

All three programs worked very well and it was soon possible to forget that the second drive was a 'funny' format. The savings on disc costs could begin.

WHY 5¼?

It may seem odd to want to add a completely different disc drive to your PCW 8256. There are, however, several advantages. The main one is the immediate saving in the cost of discs. Even a year after their launch, discs for a PCW cost between £3 and £6 each. By attaching a 5¼ inch drive to your favourite word processor you can take advantage of the much lower cost of the larger discs. 5¼ discs can be bought for as little as 50p each, so if you buy 20 you could save as much as £110!

The second main reason is that 5¼" drives are much more 'standard' than Amstrad's 3" format. This means that nearly all other micros will use them (including Amstrad's own PC, of course). If you can connect a 5¼" drive to your PCW you are half way to being able to read data from discs used by these other micros. The other thing you need is data copying software, and that may not be far away ...

Verdict

Obviously, comparisons will be made between this unit and Gemini's InterGem, which has been on the market now for several months. The main advantage of Uniface is that it's half the price of InterGem, while still performing exactly the same function. You don't have the option of running your 5¼" drive from the PCW's power supply as you do with InterGem, but there is some doubt as to the wisdom of this, anyway, as the PCW power supply is very close to its limits when powering a 5¼" drive.

Silicon Systems' software is less sophisticated than Gemini's and can only use discs in its own formats, but disc handling with Uniface is a lot faster and for most users will be more than sufficient. Silicon Systems are working on a 'do your own thing' formatting program which will allow Uniface to sense the format of any disc put in the external drive and adjust itself to that format. When this program comes along, they will have an extremely versatile system for copying data on a PCW.

PLUSES

- **Allows connection of almost any drive**
- **Quick to fit**
- **Allows use of cheap 5¼ discs**
- **Realistically priced**
- **Could allow you to run discs from other micros on your PCW**

MINUSES

- **Invalidates your Amstrad guarantee**
- **With a 5¼" drive, it's more expensive than an Amstrad 3" drive**
- **No copying software for other formats available yet**

RANGE OF FEATURES ■■■■	**OVERALL SPEED** ■■■■
EASE OF USE ■■■■	**DOCUMENTATION** ■■■■

***8000 PLUS* VALUE VERDICT** ■■■■

VICAR PROBES BAD LANGUAGE

THE VICAR

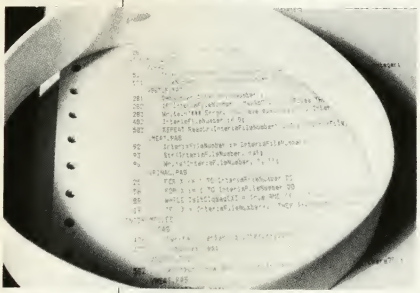
£29.95 ● lansyst ● 01-607-5844

It's not hard to see why lansyst has shortened the name of its 'Variables In Context Analyst and Reporter' to VICAR, but it still doesn't give much clue to its use. In fact, it's a sophisticated programming tool for anyone writing long programs in any of the main micro-computer languages. lansyst can supply VICARs for BASIC, Pascal, C or the database language dBase II, but the BASIC utility is most likely to be of use to PCW owners.

MODULE POWER

Why should anyone writing a program want to break it down into separate modules? The main reason is de-bugging, the process of removing errors. If you're writing a big program, say 1000 lines or more, it becomes very difficult to keep track of all your variables and long-winded to edit it, even on a good word processor.

The way round this problem is to write each section of the as a separate unit and get rid of as many of the errors as possible before using it as a building block in the complete program. When you finally compile the program (convert it from BASIC, Pascal or C into machine code) you can tie all the modules together into one long, and hopefully correct, program.



PLUSES
- ⊞ Easy to use but still flexible through use of options
- ⊞ Amstrad versions all at reduced price
- ⊞ Good manual

MINUSES
- ⊟ Only of real value on large programs
- ⊟ Limited value to most PCW users (except BASIC buffs)

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■□□
EASE OF USE ■■■■□ DOCUMENTATION ■■■■□

***8000 PLUS* VALUE VERDICT ■■■□□**

What do VICARs do?

The VICAR will look at one or more program files on disc and extract all references to the variables you've used in the program. It will then sort the variable names into alphabetical order and list each one followed by all the lines of your program which refer to it. The idea behind this cross-referencing is that it helps you de-bug a program by showing you where each variable is used.

This may not sound much use, and is probably of limited value when the program you're developing is short. If you get really hooked on IFs, WHILEs and FORs, though, and start to develop programs commercially, you will soon find that your creations can grow extremely quickly.

Many modern languages allow you to create parts of your programs as discrete units, or 'modules', and this technique helps in itself to keep track of the variables you've used. It can have a disadvantage as well, though. When your program is spread across several modules, it can take quite a while to track down the part of the program which is causing a particular error.

What The VICAR does is to trace your use of different variables across as many different modules as you may have.

How do VICARs do it?

In its simplest form the VICAR is remarkably easy to use. You have to present it with an ASCII version of your program listing, but for all compiling languages this is fairly easy as you would normally write them on a word processor anyway. In Mallard BASIC, it's not quite so simple, as you have to save a special ASCII version using the ,A option after the filename.

The VICAR also requires a file telling it which program files to analyse and another if you want to exclude specific variables from the analysis. With these two pieces of information it will go away and produce a third file, containing an index of your variables. You can then display or print this analysis, which is again an ASCII file.

The listing shows the VICAR analysis of one of this month's BASIC programs. As you can see it's about as long as the program itself. With longer programs the index can be up to twice as long as the program from which it's produced, and take up to four times the memory.

This is perhaps its biggest disadvantage when used on the PCW, as it restricts the maximum size of program which you can process. lansyst acknowledge this themselves and it's reflected in the special Amstrad price, which in the case of the C VICAR (ship's chaplain?) is less than a quarter of the price.

VERDICT

This is not a program for the mainstream PCW user, who is unlikely to write programs of sufficient length for it to be of great benefit. For those writing commercial applications on the machine, though, it could prove very valuable indeed. The low asking price for the Amstrad version may well provide further incentive for the inveterate hackers amongst us. ▲

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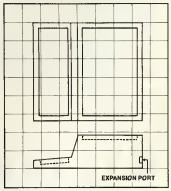

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SOUNDS GOOD

JOYSTICK/SOUND CONTROLLER
£39.95 ● DK'Tronics ● 0493 602926

The PCW was always intended as a machine for the serious minded, so the first things to go by the board at the design stage were colour graphics and sound effects. Fair enough, you say, and no great loss to many word processing fans.

DK'Tronics have made a name for themselves with hardware add-ons for micros, and now they are turning their attentions to enhancing the capabilities of the PCW. Their programmable joystick and sound controller allows you firstly to attach a joystick to programs that can use them, but also to generate a whole range of high quality harmonies, tunes and sound effects purely from software control.

Fitting the controller

The joystick/sound controller unit slots onto the expansion port at the back of the PCW, and sensibly the socket has a special notch so that you can't fit it the wrong way around. Absolutely no hardware modifications have to be made to the PCW to fit the DK'Tronics controller. The unit has a through connector, which means that if you are already using the PCW expansion port for a printer interface, for example, you can still use it even with the joystick/sound controller plugged in too.

Included in the £39.95 price is a loudspeaker with a standard earphone plug and a metre or so of flex, which fits into the controller. A volume control on the controller unit allows you to easily annoy the neighbours in the small hours.

On top of the controller unit is a standard D-type joystick connector. No joystick is provided in the package, although any standard one should work.

Using the sound controller

The sound controller can generate notes on up to 3 channels, so is capable of producing sophisticated chords and sound effects. A demonstration disc plays a passable rendition of *Scarborough Fair*, if not quite up to Simon and Garfunkel's standards. Also provided on the demonstration disc is a variety of sound effects: Big Ben chimes, explosions, ricochets and wailing bombs all provide a good start for you to base games on.

The sounds are produced in response to commands from a BASIC (or machine code) program. It follows then that to use the package for anything other than playing Scarborough Fair ad nauseam you will have to know how to program. Also, a knowledge of how musical harmonies are built up will prove not inconsequential.

Using the joystick

By contrast to the sound controller, which requires considerable skill to use, the joystick is simplicity itself. Just plug a standard joystick onto the D-connector of the unit and it works. Joysticks have five functions in life: they can go up and down, left and right, and they can fire. Normally when you move the joystick lever to the left, the controller generates a signal much as though the left-arrow key had been pressed on the keyboard, et cetera. But more than this, the DK'Tronics unit is "programmable", which means that should you want you can change by software control which keys the joystick simulates.

A simple program supplied on the delivery disc allows you to redefine the keys without yourself knowing how to program – it just says "What key do you want the fire button to produce", and so on. These settings persist until they are changed or the power is turned off.

The hardware for the joystick and sound generator as supplied

TECHNICAL DETAILS

For those in the know, the heart of the sound controller is the AY-3-8912 3-channel programmable sound generator chip. It can be programmed from within Mallard BASIC by using the OUT command to send a stream of bytes of data to port numbers 170 and 171. Alternatively, machine code routines can read and write the ports directly.

For hardware fans, the manual provides a pin-out of the joystick port and some brief details on how to build your own circuits so that the joystick controller can drive them. Since the joystick port is programmable, from software control you can set almost any of the pins on the port to be high or low, thus controlling external hardware. One example provided is a driver for a 7-segment LED display.

Summing up

For people who want to push their PCW beyond simply running business programs, the joystick and sound controller unit opens up exciting possibilities. At £39.95, programmers will find it an exceptionally useful package, but unfortunately the manual does nothing to open up the world of PCW sound to novices.

Finally, don't forget that if you only want the programmable joystick controller, it is available separately at £24.95

Joy without sound

If you want the programmable joystick controller, but not the sound generator, DK'Tronics sell this unit separately at £24.95. However, there are other joystick interfaces on the markes which are cheaper and may do everything you need, like Cascade's and Kempston's.

PLUSES
- **Powerful sound chip can generate chords and other effects**
- **Speaker included in the price**
- **Very simple and quick to fit**
- **Joystick can be programmed made to simulate the keys of any program**
- **Joystick interface suitable for driving simple home made circuits**

MINUSES
- **Sound is only in mono**
- **You need to be a good programmer to use the sound generator**
- **The manual is little more than a fact sheet**

RANGE OF FEATURES	■■■■□	OVERALL SPEED	■■■□□
EASE OF USE	■■□□□	DOCUMENTATION	■■□□□

***8000 PLUS* VALUE VERDICT** ■■■■□

COLLECTORS ITEM

A software suite for under £50. What value?

Do you fancy much of the software described in these pages? A database, perhaps, or a spreadsheet. How about a good labelling program? Nice in theory, but there are always so many other uses for each hard-earned pound. We think we may have discovered the solution...

The Micro collection
£49.95 ● Saxon Computing ● 0401 50697

Back in the early days of Amstrad's invasion of the computer market, their software arm marketed a number of business programs for the CPC range, written for them by Saxon Computing. Saxon have now collected a word processor, database, spreadsheet, labeller and password program together in versions tailored to the PCW and are marketing the lot for under £50.

First Impressions

Called the Micro Collection, it comes bound together in a loose leaf file with two discs tucked in a wallet in the front. The documentation is a fairly low-budget affair, photocopied from a daisywheel print out. It does, however include a key-by-key tutorial and reference section for each of the main programs, with the exception of Flexicalc, the spreadsheet. This is supplied with a text file on disc, and it's up to you to print it out yourself. One of the penalties of keeping the overall price low.

The programs all use a similar format of menu selection and function key commands which is quite straightforward to use, although looking a little dated in comparison with Locoscript's pull-down menus and the like. Perhaps this isn't surprising as the programs are about two years old.

Jargon Jungle
If you think of a database as a computerised card index, the whole box of cards is referred to as a *File*, each card is a *Record* and each piece of information on the record (names, addresses etc) is a *Field*.

This is the database, and it's really quite a sophisticated program. It's a 'flat file' database, which means it mimics the kind of file most commonly found in a card index system. It can't tie together information from more than one file at a time, but this is a rather specialised requirement, and the things Micro File can do will suit the majority of users.

You can define up to 20 fields on any record and can have up to 65536 records in a file (though in practice you'll run out of disc space long before this). Each file can have up to four screen layouts and 8 report layouts attached to it (similar to templates in Locoscript) and up to four key fields may be defined.

A key field is a field for which Micro File maintains a separate index. This allows very quick searches to be made when using information in the key fields. One of the main advantages of a computer database over a manual card index is the speed with which you can extract cards which fulfil a pre-set selection 'rule'. The key field system speeds this up considerably.

The other unusual feature of Micro File is its ability to calculate values held in numeric fields in each record. This means, for instance, that you could define a series of sales records for all the products in your small business and get Micro File to calculate the retail price automatically from wholesale price, mark up and VAT rate.

This is probably the best program in the suite, as it is an almost exact clone of WordStar. When considered at about one fifth of the price of Pocket WordStar, it must represent very good value. It duplicates all the control code sequences used by 'the real thing', and allows you to enter dot commands to control the printing of your document.

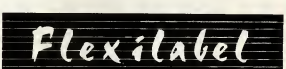
The only restriction, and it may prove a problem if you produce a lot of large documents, is that Micro Word can only handle a document in memory. It has no way of moving text to and from disc while your editing, as WordStar and NewWord have. This effectively means you're limited to about 1000 lines of text when using this word processor.

Although it's a good program, it may well be of least use to a PCW owner, because of Locoscript. However, at the price Saxon are asking, you could even use it as a 'trial run' to see if it's worth your while changing to WordStar or NewWord as your main word processor.

FlexiCalc

The spreadsheet is supplied 'as is', and is not as useful as some of the other programs in the Collection. The fixed sheet size is 20 columns by 85 rows, although you can only view this through an 8 by 15 window. The dimensions of this window are probably chosen because the program redraws the screen rather slowly. An 'interesting' feature of the higher numbered rows of the sheet is that you can use them to view sections of the CP/M operating system. I don't think this is intentional, and even though Saxon don't intend to support FlexiCalc, I think they ought to correctit.

FlexiCalc provides many of the features you'd expect from a spreadsheet, including copying of the formulas (known as replication). The mathematical operators include Mean, %, and trigonometrical functions, as well as the more 'mundane' arithmetic operators: +,-,* and /.



This is a useful labelling program which controls printer output across up to five labels in a row and allows you to print a set of mailing labels or a bulk print all with the same message. You can use any of the available fonts on your PCW printer or an Epson compatible machine, and can have up to 20 lines of print per label, depending on its overall size.

If you are feeding addresses from a word processor or

database file, you can 'scrunch' them so that addresses of different lengths don't have unsightly gaps in between their lines.

The program is largely controlled through a series of menus and is simple to set up. You can use data from any word processor which can produce a straight ASCII file as output, so later versions of Locoscript and of course MicroWord are fine for the job.

Lock-It

This program is designed to stop other people looking at the data from your word processor, database or spreadsheet. Lock-It codes (encrypts) any ASCII file in such a way that it can only be read by someone who knows the password you used to prepare it.

Encrypting data is probably of little value to anyone using their PCW at home, but in the office, particularly one dealing with sensitive information, it could prove very useful. Whatever you do, though, don't lose your Lock-It disc!

Verdict

It's hard to be critical of any package offering so much at such a reasonable cost. The database and word processor alone are worth the price and the other programs are of varying value, depending on the tasks you set your PCW. There are a couple of problems with the spreadsheet and it's a shame Saxon aren't supporting the product, but overall it must be a very good general purpose office control package.

PLUSES	MINUSES
⊞ Five packages for the price often charged for one	⊟ Spreadsheet has a few problems
⊞ Database has plenty of features, including calculation fields	⊟ Word processor may have limited appeal to Locoscript owners
⊞ Word processor is fully WordStar compatible	⊟ Programs look a bit dated beside more recent PCW packages

RANGE OF FEATURES ■■■■□ EASE OF USE ■■□□□ OVERALL SPEED ■■■■□ DOCUMENTATION ■■□□□

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REALLY FREEFORM

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Those people who've used a database will know that the general format of these programs is to present a screen with a number of preset places where you can enter your information. These are normally the only places you can type and you're limited to the length and number of 'fields' you've defined on a 'record'.

This is fine for address lists, records of the number of different toffees stocked by your local sweetshop or a catalogue of exotic pets available across the counter of your neighbourhood take-away. When you need to store large amounts of text in each record, though, this kind of program has some shortcomings. Chibase is designed for just such a circumstance.

Chibasics

As with most databases, Chibase is divided into two distinct sections; creation and retrieval programs. The first program records a number of 'blank pages' on a disc, while the second one allows you to add text to each page and calls up pages by using a system of 'keywords'. The concept is very good, as it allows you to highlight up to 50 words within each page of text and to use these 'keys' to recall the pages later.

If you have a collection of recipes on you Chibase data disc, for instance, you could search them for all the recipes containing eggs, or all those that can be prepared in under five minutes. This assumes that you've highlighted each ingredient and cooking time on all page before making the search.

The practicalities

Chibase doesn't go overboard on presentation – indeed there is very little on the screen most of the time, unless you include your own text. This would be fine if it was obvious how to use the program. Unfortunately, although it's quite simple to add pages and search through them for specific entries, you are hindered at almost every turn by the bizarre choice of controls and user-hostile editor.

You open with Chibase's Help screen, actually its main menu. There is no help as such in the program, so if you can't decipher a particular command your only recourse is to the manual. This is 24 pages of close-printed text. It includes tutorial and reference sections, but has few illustrations and no index. With a bit of digging, though, you can find most of the information you'll need.

All commands in Chibase are made by holding down the [ALT] key and pressing one other letter. This means you have to remember which sequence produces which result. You can refer to a single line screen prompt or keep flicking back to the 'Help' menu, but it would be a lot simpler if you could remember the sequences. And what could be easier than ↑I to list all the key words you've defined, ↑V to insert a line of ↑L to finish a session. This is WordStar all over again, only I don't see why I should have to go through the pain of learning a completely different set of sequences on a modern product.

The Editor

When you're entering text onto a Chibase page you just type away, the program wraps your words at the end of each line as a word processor would. If you want to insert text though, you have to press ↑C before each *letter* you want to insert. Fortunately you can load text from an ASCII file as well as from the keyboard.

Forms

If you are entering a number of pages in a similar format you'll probably want to save yourself some typing by defining a 'form' containing all the headings. Chibase can hold many forms, but again they're not quite as handy as they might be. When you recall a form to enter pages into your database, the headings do appear on each blank card. The trouble is there's no way of moving quickly from one heading to another. The only cursor controls you have move you one character or line in each direction, and if you're not careful you can overwrite the headings as if they were part of the text.

Verdict

I wouldn't like you to think that Chibase doesn't do its job. It finds keywords from even a large database (100,000 characters or more) in only a few seconds. The idea of having a free-form database which isn't restricted to pre-defined record formats is also good. It's just that so little thought seems to have been given to the way the program presents itself that I doubt there will be many users patient enough to make full use of it.▲

PLUSES	MINUSES
⊞ Doesn't require you to set up a preset 'record' card	⊟ Very awkward set of control sequences
⊞ Searches through your data very quickly	⊟ Poor screen editor
⊞ Allows you to select up to 50 keys for each page of text	⊟ No sample files to learn on

RANGE OF FEATURES ■■■□□ OVERALL SPEED ■■■■□
EASE OF USE ■□□□□ DOCUMENTATION ■■□□□

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MAKING WORDSTAR READABLE

Nine lines of BASIC which knock spots (and accents, and borders, and little wiggly lines) off WordStar text.

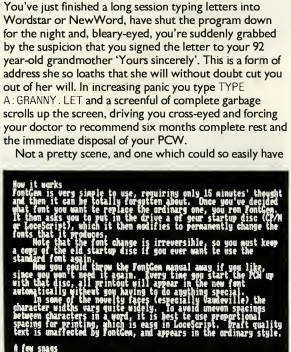
```
10 INPUT "name of WordStar file";WS$
20 INPUT "name of file to hold ASCII output";ASC$
30 OPEN "I",1,WS$
40 OPEN "O",2,ASC$
50 WHILE NOT EOF(1)
60 C=ASC(INPUT$(1,1)) AND 127
70 PRINT #2, CHR$(c);
80 WEND
90 CLOSE
```

You've just finished a long session typing letters into Wordstar or NewWord, have shut the program down for the night and, bleary-eyed, you're suddenly grabbed by the suspicion that you signed the letter to your 92 year-old grandmother 'Yours sincerely'. This is a form of address she so loaths that she will without doubt cut you out of her will. In increasing panic you type TYPE A:GRANNY.LET and a screenful of complete garbage scrolls up the screen, driving you cross-eyed and forcing your doctor to recommend six months complete rest and the immediate disposal of your PCW.

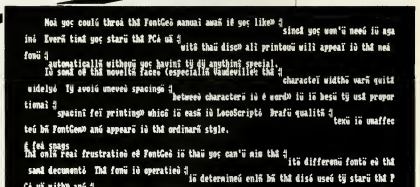
Not a pretty scene, and one which could so easily have been avoided with our super-economical WordStar to ASCII file converter. Not only can you display a WordStar file on the screen in a thoroughly readable manner but, at no extra charge, you can load the converted file into LocoScript by opening an empty LocoScript file and reading in the ASCII text. What amazing value!

Follow the instructions in the 'How to type a listing in' box, noting in particular that the characters in inverted commas in lines 30 and 40 are capital i and capital o, respectively, and that the figures in brackets in lines 50 and 60 are all ones.

When you run the program from within BASIC, you are asked for the names of the WordStar file and the file for the converted text. The utility then goes away and converts the WordStar file into ASCII.



▲ AFTER the converter's done its job

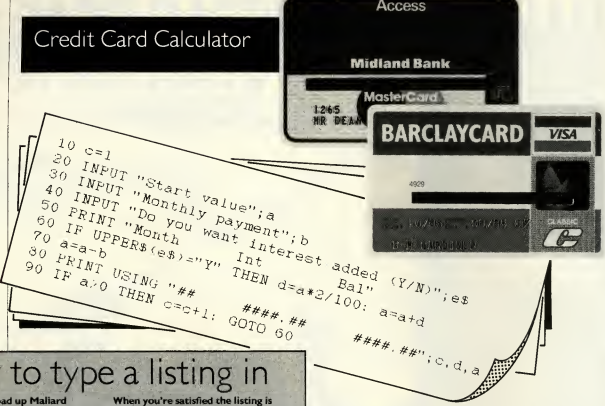


▲ BEFORE application of the file converter

Boffin Note

WordStar adds 128 to the value of the last character in each word of a document file. This is why these characters show as foreign letters or graphic symbols when displayed from outside WordStar. WordStar uses these so-called 'high bytes' to keep track of the ends of words and help it format text.

Credit Card Calculator



by R.N.Clapp

This short routine helps you calculate just how much you will owe your credit card company by the end of the month. Enter the program as usual. When you run it, decide whether you want interest added to your figures and the program will then calculate how much you owe.

As it stands, the program assumes an interest rate of 2% per month. If the current rate is different from this, just change the the '2' in line 60.

A sample run of the Credit Card Calculator

```
Ok
run
Start value? 300
Monthly payment? 20
Do you want interest added (Y/N)? y
Month      Int        Bal
 1         6.00     286.00
 2         5.72     271.72
 3         5.43     257.15
 4         5.14     242.30
 5         4.85     227.14
 6         4.54     211.69
 7         4.23     195.92
 8         3.92     179.84
 9         3.60     163.44
10         3.27     146.70
11         2.93     129.64
12         2.59     112.23
13         2.24      94.48
14         1.89      76.36
15         1.53      57.89
16         1.16      39.05
17         0.78      13.83
18         0.40       0.23
19         0.00     -19.77
Ok
```

How to type a listing in

The first thing is to load up Mallard Basic. To do this, turn on the PCW (or reset it with [SHIFT]+[EXTRA]+[EXIT]) and into the top drive put the CP/M startup disc, which is the other side of the LocoScript startup disc.

When you get the A> prompt, type BASIC, **and after a few seconds a message about "Mallard-80 BASIC" appears and it says "Ok". Now copy out each line in the listing very carefully, including the line numbers, and press [RETURN] at the end of each line. Be careful to distinguish between capital I and the digit 1, O and 0, and colons and semicolons. During a long listing it's important to save your work every 15 minutes or so. And for all listings you must save them for attempting to run them. To do this, find a work disc you can write to, put it in the disc drive, and type** SAVE "PROGRAM"[RETURN]. **Or you can choose any other name instead of the word "program".**

When you've finished, type LIST [RETURN] **and the whole program will appear on the screen. Check it, and if any lines are wrong, you can correct them with the line editor. For example, if the mistake was in line 100, you would type** EDIT 100 [RETURN], **and use the cursor keys and delete keys to fix the line. Press [RETURN] when the line is correct.**

If you have mistyped a line number, so that a line appears in the wrong sequence, just type the incorrect line number and the [RETURN], which effectively deletes the line, then retype the line with its correct number.

When you're satisfied the listing is correct, SAVE the finished version (see above) and now your program is ready to run. Just type RUN [RETURN]

And yes...it goes wrong

It's more than likely, no matter how meticulously you copied the listing out, that the first time you run the program it won't work properly. You may get some arcane message like "Syntax error in 100". List the program out (using LIST), and carefully check the screen against the original in the magazine.

Incidentally apart from Syntax errors, the line number mentioned in the error message isn't necessarily where the error is located – it's simply the point at which the computer gets stuck. You may have to look elsewhere for the error.

When you've found it, either retype the line wholesale, or correct it by using the line editor as described above. Type RUN **again, and hopefully it works this time. If not, go on correcting and re-running until it does. Finally, don't forget to save the corrected version again.**

When you've finally finished with the program, typing SYSTEM [RETURN] **returns you to CP/M.**

To run the phone coster another day, start BASIC up normally, put the disc you saved the program on in the drive and type LOAD "PROGRAM" [RETURN] **or whatever name you gave the program when you saved it. Then as before, when it says Ok, type** RUN [RETURN].

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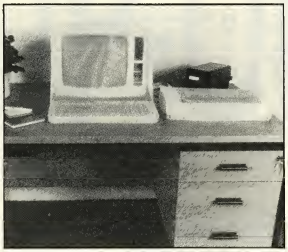

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Programs of 1-20 lines are particularly likely to be printed (because we can manage several in an issue) – those that are longer have to be really good, so don't get carried away with lots of lines devoted to "window-dressing" the program. Instructions can be given in accompanying documentation much more efficiently.

To submit a listing you must supply the following:

1. A printout of the listing.
2. A disc on which it is saved. 3. A stamped addressed jiffy bag for return of your disc.
4. An explanation of what the program does and how to use it.
5. A signed statement confirming that the program is your original work and hasn't been submitted to anyone else.

Send your submissions to: *Listings, 8000 Plus, The Old Barn, Somerton, Somerset, TA11 5AH.*

Please allow up to 40 days for return of your disc – the programs will be assessed all in one batch once a month!

Eclipse Predictor

by Howard Roughley

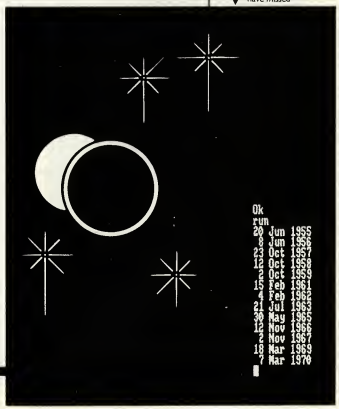
Did you miss the recent eclipse of the moon? Shame on you. It needn't happen again though. Just type in this short program and conjunctions of the Sun, Moon and Earth need never be a mystery again. The program reports the dates of all eclipses since 1955 and will keep going until you turn starry-eyed and press [STOP].

If you want to print the dates out rather than displaying them on the screen, replace the word PRINT in lines 330 and 335 with LPRINT.

```
10 REM ***eclipse predictor***
20 DIM m$(12),m(12)
30 FOR m=1 TO 12
40 READ m$(m),m(m)
50 NEXT m
60 DATA Jan,31,Feb,28,Mar,31,Apr,30
70 DATA May,31,Jun,30,Jul,31,Aug,31
80 DATA Sep,30,Oct,31,Nov,30,Dec,31
90 REM New moons for 100 years starting June 20 1955
100 FOR d=0 TO 36525! STEP 29.5306
110 IF ap>72 AND ap<288 THEN 140
120 IF np>346.5 OR  np<13.5  THEN GOSUB 210
130 IF np>166.5 AND np<193.5 THEN GOSUB 210
140 np=np+30.671257#
150 ap=ap+25.816427#
160 IF np>360 THEN np=np-360
170 IF ap>360 THEN ap=ap-360
180 NEXT d
190 STOP
200 REM print date
210 days=d+171
220 y=1955
230 FOR c=1 TO 25
240 FOR l=0 TO 3
250 FOR m=1 TO 12
260 days=days-m(m)
270 IF l=1 AND m=2 THEN days=days-1
280 IF days<1 THEN 330
290 NEXT m
300 y=y+1
310 NEXT l
320 NEXT c
330 PRINT USING "##";INT(days+m(m));
335 PRINT " ";m$(m);y
340 RETURN
```

◀ The eclipse predictor program

Some of the eclipses you may ▼ have missed



TIP-OFFS

Welcome to three more pages of tips which a Bookie wouldn't touch

With these tips, you're guaranteed a winner. This month it's Chris Lilley from Ashfield, Dunblane who carries off the 8000 Plus bouncing czech for £20, for his devious revelations about the MAIL232 program. What we can't understand is how he ever discovered it.

We've been very impressed by the quality and range of tips that you are sending in, but we can never get too many of them. Keep them coming, to *TipOffs, 8000 Plus, The Old Barn, Somerton, Somerset TA11 5AH*, and next month £20 could be yours.

That's Life

It has become traditional to hide a game called "Life" in computer operating systems – Unix has one, as do many other large computer operating systems. The PCW has one hidden amongst its LocoScript files on side 1 of the systems discs.

First, an explanation of how to play Life. It was developed as a diversion by a group of mathematicians some years ago, and follows a few simple rules. Think of a colony of bacteria which breed and change as generations go by.

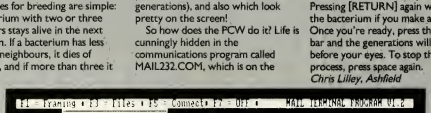
The rules for breeding are simple: any bacterium with two or three neighbours stays alive in the next generation. If a bacterium has less than two neighbours, it dies of loneliness, and if more than three it dies of overcrowding. If any empty space on the screen has exactly three neighbours then a new bacterium is created in that space for the next generation. If you aren't sure how the number of neighbours is worked out, imagine a Noughts and Crosses game grid – the neighbours of a cell are the eight cells around the central one.

To "play" life, you set up an initial arrangement of cells (the bacteria), then sit back and watch the generations pass. The object is to find starting patterns which survive (some patterns become extinct after a few generations), and also which look pretty on the screen!

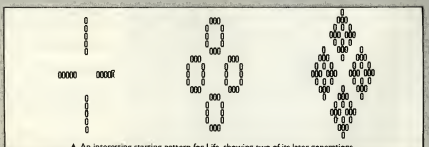
So how does the PCW do it? Life is cunningly hidden in the communications program called MAIL232.COM, which is on the LocoScript system disc. To run it, boot up CP/M, then put your LocoScript disc in the drive. Type MAIL232 [RETURN], wait for the screen to clear, and then press the [f3] key. Move the cursor bar to the last option on the menu that appears, "Transfer as ASCII" then hold down the [EXTRA] key and press P.

Now the screen goes totally blank apart from a cursor. Here's where you set up the initial bacterium pattern. Use the arrow keys to move the cursor, and press the [RETURN] key whenever you want to place a bacterium at the cursor position. Pressing [RETURN] again will delete the bacterium if you make a mistake. Once you're ready, press the space bar and the generations will roll by before your eyes. To stop the process, press space again.

Chris Lilley, Ashfield



▲ The main screen of MAIL232, at the point where you press [EXTRA] + P to set Life going.



▲ An interesting starting pattern for Life, showing two of its later generations.

Bypassing passwords

Remember that first week, reading all about CP/M and discovering you could set passwords on files? Now a month or two later, faced with a disc of files with read protection, you can't remember any passwords! There doesn't seem to be any way to circumvent the password system from inside CP/M without being a hacker, but there is a way to cope.

Start up LocoScript, and then put your CP/M disc with the protected files on it in the disc drive (and press [f1] to see its contents on the Disc Management screen). Now "Create" an empty file, select "Insert Text" from the [f7] menu, and choose the CP/M file that you need to unprotect.

Finally, when you've finished the edit select "Make ASCII file" from the Disc Management screen to create a file that CP/M can make sense of. Voila. This method, of course, only works with text files. You can't use it on a .COM file, for instance.

Chris Lilley, Ashfield

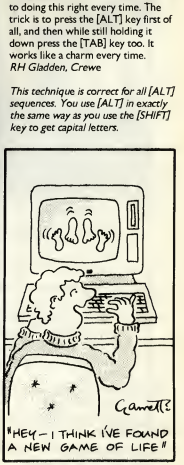
Using [ALT] with keys

When you need to use an indent tab, for example, the manual tells you to press [ALT] and [TAB] together. Sometimes it seems to work, and the magic symbol appears on the screen. But more often than not, it doesn't work and you are faced with the ordinary tab symbol on the screen.

However, there is a secret knack to doing this right every time. The trick is to press the [ALT] key first of all, and then while still holding it down press the [TAB] key too. It works like a charm every time.

RH Gladden, Crewe

This technique is correct for all [ALT] sequences. You use [ALT] in exactly the same way as you use the [SHIFT] key to get capital letters.



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Non-standard printers from BASIC

If you have a special printer connected up to the Centronics parallel interface of the PCW, but you still want to use the standard printer for quick draft printing, you might be getting annoyed at the trouble it takes to switch between them.

If you are using LPRINT statements from BASIC, here's a way to quickly switch between the two different printers. Type in this listing to go on the end of your program (make sure the line numbers don't clash), and then the command GOSUB 40000 will direct all output to the standard printer, and GOSUB 40100 switches it to the Centronics interface printer.

```
40000 POKE 8796,&HEA
40010 POKE 8797,&HFD
40020 RETURN
40100 POKE 8796,&HD0
40110 POKE 8797,&HFE
40120 RETURN
```

N.L. Bowen

STOP right there!

Many people don't realise that the [STOP] key in LocoScript can avert disaster, or at least mitigate its consequences.

If you accidentally pressed [DOC] and can see yourself in for a three hour wait as your life scrolls by your eyes, pressing [STOP] twice will cancel the operation. It is also useful if you press [CUT] at the wrong time and see your last day's work being excised – [STOP] will curb the damage.

The only thing [STOP] will not halt is the progress of exiting from a file, and certain other disc management operations like file copying.
Richard Hopper, Buckfastleigh
JT Brien, Ballinamallard

Addressing labels without tears

A neat way to address labels and envelopes involves using the PASTE feature of LocoScript.

When you type a letter, of course you have the addressee's details somewhere in it. Before you finish editing it, position the cursor at the start of the name, and press [COPY]. Move to the end of the address, and make it into a Phrase by pressing [COPY] and a letter, like A. Now you can close the document and return to the Disc Management screen.

Now for the clever part. To print the address label, just go into direct printing (press D) and then do [PASTE] A (or whatever letter you chose instead of 'A'). This prints out the stored address very neatly.
Garett Hayes, Co. Dublin; Mary C Duncan, Aberdeen; Alex Bruce, Harrow

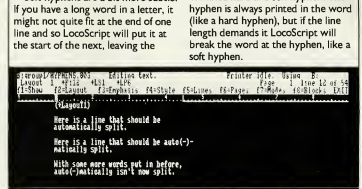
Hyphenation in LocoScript

You can add a bit of class to your documents by understanding how hyphens work in LocoScript.

There are two kinds of hyphen – "soft" and "hard". A hard hyphen will print out as a normal hyphen on the screen, but LocoScript knows not to break the word over two lines. This is useful for phrases like "toss-up", if you want to ensure that you don't get "toss-" on one line and "up" on the next.

Soft hyphens are a bit more subtle. If you have a long word in a letter, it might not quite fit at the end of one line and so LocoScript will put it at the start of the next, leaving the previous line looking unnaturally short. If you insert a soft hyphen in the word, then LocoScript will break the word over two lines. If you subsequently edit the document so that the long word is not over a line break any more, then LocoScript will not print out the hyphen as part of the word.

Hard and soft hyphens can be got at from the 'f5' menu while editing. Alternatively, the [–] menu can be used to set a hard hyphen, and the [-] menu for a soft one. Just typing a hyphen normally in a word is a sort of mixed hard and soft hyphen. The hyphen is always printed in the word (like a hard hyphen), but if the line length demands it LocoScript will break the word at the hyphen, like a soft hyphen.



Here is a line that should be automatically split.

▲ A line with no hyphens

Here is a line that should be auto-matically split.

▲ Inserting a soft hyphen allows a word break

With some more words put in before, automatically isn't now split.

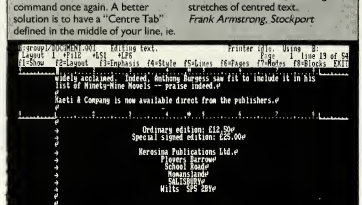
▲ But the hyphen won't show if it isn't needed

Centring large sections of text

The 'f5 lines' selection on the Editing Text screen to produce centred lines is most useful in the production of small advertising leaflets and so forth.

The drawback is that the centring process stops operating at the end of each line, leaving you back at square one with the need to enter the command once again. A better solution is to have a "Centre Tab" defined in the middle of your line, ie. at the "46" mark on the ruler for each Layout that you use.

To do this, whenever you define a layout (using 'f2 Layout' and 'brand New layout', position the cursor in the middle of the ruler (usually at mark '46') and press the 'f5 Centre Tab' key. Now when you use this ruler, just press [TAB] at the start of each line you need to centre, which is much more convenient for long stretches of centred text..
Frank Armstrong, Stockport



▲ A region of text centred by t:be, showing rulers and effectors

Printing multiple copies of a document

Many people are disappointed to discover that there are no facilities for LocoScript to print out several copies of the same letter or document. For instance, in organising church services you might want to circulate a number of people in the congregation, or provide the month's hymn lists for the choir. Here is one way to overcome the problem:

When you have edited your text, make sure you put an "end page here" marker using the 'f6 Pages' menu. Then press [COPY] and make the entire document into a block in the normal way – make sure you include the end of page marker in the block. Suppose you called this block number 1, then to get another copy you would just press [PASTE] and then 1.

To get 10 copies, repeat this 9 times in quick succession, and then go away and do something else for a few minutes while LocoScript does its stuff. When you come back, you will find 10 identical pages in your document, and you can then print the whole document in one go using the 'Print all pages' option of the print command, and if you are using continuous stationery you can go away and have another cup of tea while it prints.

Do make sure your stationery is feeding properly before you depart, though, and that it has somewhere to go other than to roll itself around the printer roller! One final tip: if you are making up long documents with repeat pages in the way just described, it is best to store the document in the M drive. This way you avoid cluttering up your valuable floppy disc space with 20 copies of the same page.
Owen Vigeon, Lancaster

Preventing word breaks

People who aren't very used to word processors may not understand the idea and use of "hard spaces". Since LocoScript automatically decides where the ends of lines are to occur, you may find that things like 'Mr. Smith" get unavoidably split, with the "Mr." at the end of one line and the "Smith" at the beginning of the next.

The solution to this is to replace the gap between "Mr." and "Smith" by a hard space. This means that although it prints out as a space, LocoScript knows not to split the two words up, but to run the whole phrase on the next line.

To type the name so that it won't be split up by LocoScript, type the first word, then don't press the space bar but input a hard space instead. Do this either with the f5 key, or by pressing the [␣] key and then the space bar. Finally, type the remainder of the phrase.

Programs that change the key layout

Programs like NewWord and WordStar alter the PCW keyboard to suit their own needs, which is very nice. Unfortunately, when you finish using these programs the keys are still set up for them which can make running something else afterwards impossible without resetting the machine entirely.

The way around this is to use the SETKEYS program to reset the keys to normal CP/M use. For example, following on from the NewWord boot disc program published in issue 1's TipOffs, create a file called "KEYS.CPM" containing the lines

```
14 N S "↑ " E #91 "↑ " "
06 N S "↑F"
E #94 "↑F"
79 N S "↑↑"
E #96 "↑↑"
15 N S "↑A"
E #93 "↑A"
```

Then after the PROFILE.SUB file so that it automatically uses SETKEYS to reset the keyboard when you exit form NewWord, like this:

```
PIP
<M:=NW.COM
<M:=NW*.OVR
<
SETKEYS KEYS.WP
M:
NW
<LB
A:
SETKEYS KEYS.CPM
```

Now on leaving NewWord, other programs which expect the cursor keys to behave 'normally' will work correctly.

A Hooley, Bury

LocoScript alarm calls

As everyone knows, some of LocoScript's operations like scrolling through a file or exchanging every occurrence of a word for another one throughout a document can take a long time. Tea time, you say, and rush off as ever for the kettle.

LocoScript can be made to give you an alarm call when it has finished its labours. The trick is this: once you've finished giving LocoScript its instructions and it is going about its slow way, press a meaningless key like the # grid at the centre of the four cursor keys several times. When LocoScript finishes its work, it will see this meaningless instruction awaiting it and will beep long and loud in protest, once for every time you pressed the key.

For example, if saving a long file, press [EXIT], [ENTER] and then # several times: now you can go away, and the PCW will beep when it is ready for the next command.

Ray Gladden Crewe
Mike Ninnim, Burnley

Touch typing tip

Bona fide ten fingered touch typists might find the PCW keyboard rather flat. So to increase its slope, you can glue a couple of rubber feet to its own usual pads. This raises the back of the keyboard by about half an inch, and makes touch typing much easier and faster.

Justin Dennison, Guildford

Safe from prying eyes

How often have you written something to disc intending it to be printed out once and then discarded, and then realised that you would really like to get rid of it altogether? Perhaps for reasons of confidentiality you simply don't want anybody else to see it.

So what do you do? Simple, you ERASE it using f6 from the Disc Management screen. But of course you won't really have got rid of it, but you will have moved it to the "Limbo" section from where it can be easily recovered, perhaps to your embarrassment or worse.

Well, there is an answer. Again from the Disc Management screen select 'f8' and press the [↵] key over the "Limbo" option. Now the directory will show the Limbo files. If you had deleted a file called TOPSECRT.LET it will still be shown as TOPSECRT.LET on the directory, but will say "limbo" at its right. Place the cursor over that and 'f6 ERASE' it again, and it will have completely eliminated that file.

But be warned, use this facility with care and only erase files in this way if you are quite sure that you never want to see them again, because you won't.

Wolf Ruskin, London NW1

Hey, Robin!

Now for a Batman tip: collect the Bag and Boots first, then the Thruster which is hiding behind a box. The Belt isn't then far away but you need to go back and find a bit of "speed" to make a quick dash. One more hint, if you haven't yet realised it; the game takes place on seven or eight levels and you are not on the top one when you start!

Max Batten, Bromley

High Quality print in SuperCalc

One of the annoying features of SuperCalc is that no matter how you set up the printer beforehand, the text always appears in draft quality.

The snag is that just before it starts printing, SuperCalc chooses draft quality to output in. A way around this is to give the print command from SuperCalc, and then just as it starts going press the [PTR] key and change to high quality print. Although the first few characters will be in draft, the remainder of the output will be in high quality print.

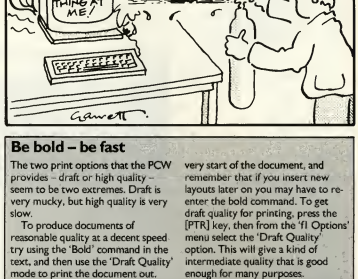
Because of this, it is handy to make sure that the first line of your spreadsheet is always blank to give you time to get to the [PTR] key.

JR Hobart, Wickford

TipOffs editor adds: This is a nice and easy solution, but there is a way to ensure that the print is in high quality from the word go, although it takes a bit more effort.

Before it starts printing SuperCalc resets the printer, which normally takes it back to draft mode. What you have to do is alter the printer's default setting to high quality, so that after a reset it goes back to NLQ mode.

If you have read the CP/M article this month on setting up the printer using "escape codes", you will see how this is done: before you run SuperCalc, set the print to High Quality with the [PTR] key, and then use BASIC to send ESC d *to the printer. Now SuperCalc will always print in High Quality.*



Be bold – be fast

The two print options that the PCW provides – draft or high quality – seem to be two extremes. Draft is very mucky, but high quality is very slow.

To produce documents of reasonable quality at a decent speed try using the 'Bold' command in the text, and then use the 'Draft Quality' mode to print the document out.

Put the 'Bold' command at the very start of the document, and remember that if you insert new layouts later on you may have to re-enter the bold command. To get draft quality for printing, press the [PTR] key, then from the 'fl Options' menu select the 'Draft Quality' option. This will give a kind of intermediate quality that is good enough for many purposes.

V. William Taylor, Wantage

The rain in Spain falls mainly on my Brain

▲ Normal draft quality

The Rain in Spain falls mainly on my Brain

▲ And the intermediate "draft + bold" print

The rain in Spain falls mainly on my Brain

▲ "High Quality"

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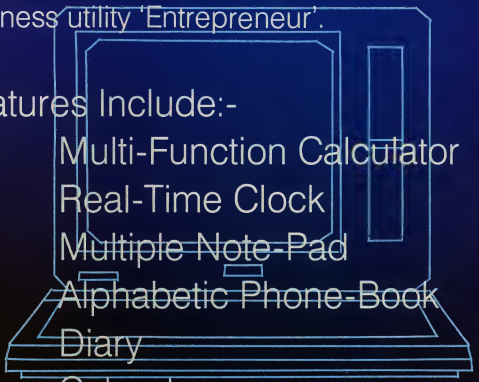

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DESTROY	Eliminate a database or file
FORMAT	Create or revise a form or HELP screen
REORG	Reorganize the structure of a database; add or delete items

Information Input and Update

APPEND	Attach records of one database to another
EMPTY	Eliminate all data in a database
ENTER	Insert new data into a database
POST	Update entries in one database with those from another
UPDATE	Change entries in a database meeting specified conditions

Information Processing and Report Writing

COMPARE	Compare entries in two databases for (not) matching conditions and create a RESULT database
COMPUTE	Compute entries in a database
LIST	Display database records in sequential order
PRINT	Print database records in sequential order
PRINTER	Printer output control and redirection
SELECT	Select database records meeting specified conditions, creating a RESULT database
SORT	Sort database records by entries
STAX	View or print statistics of entries
TABULATE	Summarize specified entries. Print or save the result
TITLE	Print report headings

Operation Aids

HELP	Assist operator in selecting procedures
INSTALL	Saves SET and PRINTER options
RESTART	Continue processing interrupted commands
RUN	Process and execute a command procedure with options for command modification

Interfaces

READ	Transfer records from an ASCII file to an existing database
WRITE	Transfer records from a database to an ASCII sequential file

Utilities

COPY	Copy a database or file
DATE	View or enter date
DIC	View entries in the data dictionary
DIR	View the list of files in the disk directory
LOGDISK	Log a new disk in the computer
RENAME	Change the name of a database or file
SAVE	Save a RESULT database
SET	Set operating parameters
SYSTEM	Exit from Condor 1 back to operating system
TERM	Defines the computer (not needed on Amstrad)

THE GOOD SOFTWARE FILE

These pages provide a comprehensive guide to Amstrad PCW software published in three monthly parts. We've set out to cover every piece of software we could lay our hands on and give you enough information on each one to enable you to decide which titles are likely to be suitable.

As well as a brief summary of the programs, we've listed their main Plus and Minus points. Those we think are particularly good have an elliptical flash on the title bar saying why we recommend them.

Have fun window-shopping...

DATABASES

There are broadly two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want – all it does is store your address book or stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Yorkshire. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of *records* – this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of *fields* – a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an *index*. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (e.g. someone's surname) is said to be a *key field*, and can be looked up very fast compared to "non-key" fields. A good database will allow *multiple keys*, meaning that it can look up data just as fast for a variety of types of information.

dBase II

£119.00 • Ashton Tate/First Software

RAW BUT POWERFUL!

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines, dBase II is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

PLUSES • MINUSES

- ⊞ Powerful command language for customised programs
- ⊞ Indexing facility makes large databases fast to handle
- ⊞ Can handle very big databases
- ⊞ The data can be fairly easily altered after its entry
- ⊟ Manual is daunting (but there are plenty of independent books on the market)
- ⊟ Can't easily alter the screen record layout
- ⊟ For an expensive package, you still only get 32 fields per record
- ⊟ Generally unfriendly unless you have some programming skills

Datafile One

£30.00 • Datarun.

This database is both a low cost card index system and a mail merge utility specifically designed to work with LocoScript. As a card index, it's quite good for personal use, and the mail merge is simple but effective. Good value for money. The documentation is in the form of a database on the delivery disc.

PLUSES • MINUSES

- ⊞ Data can be range checked as it is entered
- ⊞ Complex masks can be used for searching the database
- ⊞ Quite fast record access for a low cost package
- ⊞ Report section (the mail merge) uses LocoScript documents for templates
- ⊞ LocoScript text styles (bold, italic, etc.) can be used
- ⊟ The screen editor for designing layouts is a bit too simple to be effective
- ⊟ No conditional processing in the mail merge section
- ⊟ The on-line documentation is a nice idea, but cumbersome in practice. Needs a proper manual.

Delta

£99.99 • Comshare/NewStar

POWERFUL!

Delta is another of the heavyweights, like dBase II and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default "quick" layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

PLUSES • MINUSES

- ⊞ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ⊞ Screen layout can be user defined, or "quick" mode used
- ⊞ Single-page letter writer provides detailed mail-merge
- ⊞ Processes can be defined, and run from user defined menus, for ease of use by others
- ⊞ Very full, and quite readable, manual
- ⊟ Only one field may be used for indexing
- ⊟ Very big program - a PCW8256 would be hard pushed
- ⊟ Some of the menu operations are unforgiving to errors

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THE GOOD SOFTWARE FILE

DATABASES

AtLast1

£49.95 • Rational Solutions/NewStar

AtLast is a fairly simple card box type database. It's totally driven by menus and on-screen prompts, but this shouldn't be an excuse for the frankly inadequate manual. Its files are Pascal-compatible, so could be used for complex custom-written applications. AtLast is adequate, but unless money is a real problem, Cardbox does it better.

PLUSES • MINUSES

- ⊞ Data is accessible by Pascal programs, for really esoteric applications
- ⊞ Up to 5 separate indexes can be used to search the database
- ⊞ Can read data from word-processed text files
- ⊟ The manual is far too brief
- ⊟ Doesn't use screen editing very well in some functions
- ⊟ Some menu choices are unclear, and recovery if you go wrong is hard
- ⊟ No built-in facilities for totalling up records

First Base

SIMPLE & GOOD VALUE

£29.95 • Minerva • 0392 37756

Billed as a simple database for the first time user, First Base is quite a competent cheap card index. The manual is computer printed, and weak on diagrams which doesn't help things. One weakness is getting printed results out of First Base - either you settle for crude lists, or you have to create a template in LocoScript which is awkward to do. But overall, for simple applications and beginners, it's pretty good value for money.

PLUSES • MINUSES

- ⊞ Can alter the index field at any time
- ⊞ Simple to use screen editing makes data entry easy
- ⊞ Good value as a simple card index lookup system
- ⊞ Can easily browse through the database picking out a set by hand
- ⊟ Manual is badly laid out and generally difficult
- ⊟ Producing printed output is awkward

Matchbox

£29.95 • Quest International Computers Ltd.

A cheap, no-frills card index type database. The manual is only 13 pages long, so you had better know how to use a database before you buy this. You can't customise screen layouts, but you can print labels. Would suit a simple booklist or address list, if you really can't afford better.

PLUSES • MINUSES

- ⊞ Clear on-screen menus guide you through the program
- ⊞ Can search for fragments of words in a record
- ⊟ No control over screen layout
- ⊟ Skimpy manual (13 pages) has almost no examples
- ⊟ All characters have to be upper case
- ⊟ Only a single index field is allowed
- ⊟ If you type fast, you will lose characters

Sage Database

£99.99 • Sagesoft • 091 284 7077

A basically competent card index with simple calculation abilities that is spoiled by some silly restrictions. There isn't much control over screen layout, which makes listings untidy. Indexing is very primitive, and effectively each record must have a reference number — you can't index on someone's name for example.

PLUSES • MINUSES

- ⊞ Numeric fields may be calculated from expressions
- ⊞ Data files may have write-protection and a password
- ⊞ Text editor and mail merger are included
- ⊞ Manual is simple but effective
- ⊟ The (single) index field must be a number
- ⊟ Setting up the database is very long-winded; it needs better screen editing and copying facilities
- ⊟ Not much screen layout control when listing the data
- ⊟ Label/form printing has to be done through the mail merger

Cambase

£49.95 • Camsoft • 0766 831878

Cambase is very strong on data security - you can define passwords to protect sensitive databases. It is driven by quite an intricate set of menus, and you'll have to plan your application carefully since the database format can't be changed once set up. Generally good for writing applications with.

PLUSES • MINUSES

- ⊞ Sensitive data can be protected by a password system.
- ⊞ Record structure can be conditional - e.g. "only have a 'spouse' field if status is ' married"
- ⊞ "Processes" provide for some simple automatic calculations
- ⊟ Over-protective user interface, which asks for confirmation of almost every command
- ⊟ Database main attributes are fixed after initialisation and can't be changed.
- ⊟ Doesn't have full screen editing of records
- ⊟ Manual needs an index, and is weak on explaining advanced topics
- ⊟ The (single) key field has to be entered separately to the record data proper

Sage Database

£69.99 • Sagesoft

A basically competent card index with simple calculation abilities that is spoiled by some silly restrictions. There isn't much control over screen layout, which makes listings untidy. Indexing is very primitive, and effectively each record must have a reference number — you can't index on someone's name for example.

PLUSES • MINUSES

⊞ Numeric fields may be calculated from expressions
⊞ Data files may have write-protection and a password
⊞ Text editor and mail merger are included
⊞ Manual is simple but effective
⊟ The (single) index field must be a number
⊟ Setting up the database is very long-winded; it needs better screen editing and copying facilities
⊟ Not much screen layout control when listing the data
⊟ Label/form printing has to be done through the mail merger

Cardbox-Plus

£134.00+VAT • Business Simulations Ltd.

Business Simulations are the company who actually wrote the successful Cardbox database, and they are the sole distributors of their enhanced version Cardbox-Plus. Disappointingly, still no field totalling facilities, but it does boast sorting, index listing, disc management and an autosave feature as extras to Cardbox. The ultimate straight card index, if you have the money.

PLUSES • MINUSES

⊞ All the facilities of the very successful Cardbox
⊞ Cards can be sorted into order for browsing
⊞ "Autosave" will regularly store the data to disc in case of mishap
⊞ Files created by Cardbox can be read
⊞ Full and good manual, although the tutorial is at the end
⊟ Still no way of performing numeric calculations
⊟ A lot to pay for a few frills to the basic Cardbox

Condor 1

£99.99 • Caxton Software Ltd.

Condor is firmly pitched at the dBase II market. Like dBase, it is not only a filing system but also a programming language that allows command procedures for complex data operations. It can handle very big records — 127 fields — handy for some things like questionnaire processing. The user interface is slightly ragged, and it lacks dBase's ability to index files for fast access.

PLUSES • MINUSES

⊞ Very flexible record structuring and searching
⊞ Better control than dBase over the screen format
⊞ Command language for creating data processing programs
⊟ Can handle big databases — up to 127 fields per record
⊞ The manual is large, well written and understandable
⊟ No provision for fast data access by indexes
⊟ The on-screen prompting information is weak

Data Gem

£30.95 • Gemini

A simple database that offers data storage and retrieval operations. Data Gem runs as a set of BASIC files, and so is rather slow. You can speed it up by using index files, but this is fiddly. It's power will be found wanting if you are storing anything more than your birthday reminder list.

PLUSES • MINUSES

⊞ Adequate performance on simple files
⊞ The manual has a good introduction on explaining database jargon
⊞ Numeric fields can be calculations, like in spreadsheets
⊟ Not powerful enough for complex searches or lots of data
⊟ Cumbersome to use for anything other than a simple lookup on a single field
⊟ Index files are expensive on disc space

Microfile (Sold in The Micro Collection)

GOOD VALUE!

£49.95 • Saxon Computing • 0401 50697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. This is a good thing, since you certainly couldn't learn to use it by reading the manual. It's fast and has good screen control, although it has some size restrictions. Microfile comes as part of a software suite,"The Micro Collection", which is good value.

PLUSES • MINUSES

⊞ The price includes competent word processing, spreadsheet, labelling and encryption programs
⊞ Plenty of menus and on-screen prompting
⊞ Very flexible formatting for screen layout and printing
⊞ Numeric fields can be expressions to be calculated
⊞ Indexing is fast and can be on several fields
⊟ Maximum number of fields per record is only 20
⊟ The manual is badly organised and generally too brief
⊟ Limited facilities for totalling up fields in a database

LOGICOM

THE *NEW* RANGE OF LOGICOM PRODUCTS FOR THE AMSTRAD 8256/8512

QMAIL RRP 29.95 Available Soon

A mailmerge program that works with Locoscript files! Each name and address stored in the special database can have 5 extra User-defined fields for additional information. And, an attribute field allows each name and address to be coded for accurate mailshots.

ROTATE RRP 24.95 – it turns printing problems around.

If you have ever wished that the Amstrad 8256/8512 printer was 132 columns wide, because your print-outs won't fit across the page. Rotate prints files sideways down the page. So, all those wide spreadsheet models can now be printed in one go. Rotate prints any ASCII file, so it will work with Spreadsheets, Wordprocessors, databases and some Accounts packages on the Amstrad. Rotate also has additional fonts to choose from. Files can be printed out in the normal way as well.

PRINTER STAND RRP 14.95 – specially designed for 8256/8512.

The printer stand is 3.5"/7.5 cm high. You can store fanfold paper neatly under the printer. It's business-like and made of strong light metal with *'non-slip'* rubber feet. The colour matches the Amstrad printer flap.

Proteus are exclusive distributors for Logicom products, as well as distributors for several other publishers of 8256/8512 software. Our range includes: Amsoft, Arnor, Caxton, Compact, CP Software, Digital Research, Hisoft, MicroPro, Microcal, Sage and Tasman.

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PCW
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SIREN SOFTWARE

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PLUSES • MINUSES

- ⊞ Good, clear documentation
- ⊞ Easy for first timers to use
- ⊞ Built in text editor for pre-sending message preparation
- ⊞ Pre-definable tasks executable at any preset time if unattended.
- ⊟ No error corrected file transfer (i.e. Xmodem or CRC)

COMM+
£86.25 • NewStar • 0277 220573
POWERFUL, VERSATILE

This has to be the one we have all been waiting for! This single package combines both ASCII and full Viewdata block graphics and Telesoftware downloading with many different terminal emulations available for ASCII mode. CRC and Xmodem file transfer compatible (if you know what they are). An autodialling program is incorporated that will work with most manual modems. Also a very powerful command language allows you to look for particular messages coming in and take actions, even while doing other things. Its use is only limited by your programming ability; it's ideal for those fed up with simple dumb terminal software programs!

PLUSES • MINUSES

- ⊞ Very comprehensive and well indexed ring bound manual
- ⊞ High quality Viewdata graphics
- ⊞ Well presented on-line help menus
- ⊞ Autodialler program works with most manual modems
- ⊞ Telesoftware downloading facility, with CRC/Xmodem checking
- ⊞ Very powerful command language, doesn't need much programming skill to learn
- ⊟ Slow with screen update in Viewdata mode
- ⊟ Text editor (used for message preparation) is slow
- ⊟ Not recommended for absolute beginners to communications

8256UKM7.COM
Public domain (ie. free!)
INCLUDED FOR COMPARISON

This Public domain software communications program has recently been released for the PCW series and is included for comparison. P.D. software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file transfers using error correction and as a dumb terminal either for use over the phone or between two Amstrad's. Between two PCW's file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communications after you've got fed up with the PCW's MAIL232. 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machines.

PLUSES • MINUSES

- ⊞ Cheap! (the price of a phone call)
- ⊞ Easy to use, and helpful menus
- ⊞ Both CRC and Xmodem protocols supported
- ⊞ Single file and Batch Mode transfers
- ⊞ "Quiet" mode for slightly faster transfers (on-line transfer progress report disabled)
- ⊟ Only ASCII, no Viewdata
- ⊟ Difficult to obtain for users of Mail232 as does not support file transfer. However, a .HEX version is available which can be converted back to a .COM file using CP/M's HEXCOM program

GRAPHICS

DR Draw
£49.95 • Digital Research

This is a drawing utility, which allows you to compose designs from circles, polygons, lines and a wide variety of shadings and styles of text. It's very cumbersome to use

unless you also have a light pen or a mouse, and overall not very friendly. Not recommended unless you're ready for some hard work.

PLUSES • MINUSES

⊞ When pushed, it can produce very neat diagrams, even on the standard PCW printer
⊞ Good, professional manual (although no mention of Amstrad specifics)
⊟ You need CP/M expertise to get it installed and going
⊟ Painfully slow screen handling
⊟ Difficult to use by keyboard alone – you must buy a lightpen

Microdraft

SPECIALIST BEST BUY!

£79.99 • Timatic Systems Ltd.

This package is essentially an electronic drafting board. Lines, circles, polygons, text and so on can be accurately placed on a page, and then scaled and rotated en masse. Microdraft is not an art package, so there are no free hand sketching facilities. Overall an excellent package, comprehensively designed and easy to use.

PLUSES • MINUSES

⊞ Elements can be positioned very accurately (better than the PCW screen resolution)
⊞ Discrete elements can be grouped into blocks and manipulated
⊞ Well written and comprehensive manual (except it refers to the CPC6128 keyboard)
⊞ "Zoom" feature allows you to work on fine detail
⊞ Supports output on proper graphic plotters
⊟ No "undo" facility
⊟ Hard copy output is very slow

Light Pen & Graphics Package

GREAT FUN!

£79.95 • The Electric Studio

Ostensibly you are buying a piece of hardware — a light pen that can be used with many PCW graphics programs, like DR Draw. In practice, its main use is with the software that comes with it, a very good picture drawing package. You can free hand draw, get airbrush effects, create polygons and circles, and move blocks of pixels. Great fun.

PLUSES • MINUSES

⊞ Light pen hardware is a simple module that slots onto the back of the PCW
⊞ You can draw by free hand pen control or with cursor keys for accuracy
⊞ Menu selections are easy to understand
⊞ Full range of functions for area filling, shading and spraying
⊞ Blocks of pixels can be moved and copied
⊟ You would need to know your way around CP/M to use the lightpen itself with other graphics programs
⊟ Items on the screen are purely pixels, not distinct elements like in DR Draw or Microdraft
⊟ No positioning of items by numeric co-ordinates for accuracy.

DR Graph

£49.95 • Digital Research

A rather specialised package, specifically for presenting complex data in graph form. Can produce line graphs, bar charts, piecharts, scatter plots, text, and compositions of any mixture of these. Very flexible, and easily operated by menus, but really needs a graph plotter to do it justice.

PLUSES • MINUSES

⊞ Can read data from certain spreadsheet packages (e.g.SuperCalc)
⊞ Extensive annotation and text placing is possible
⊞ Good, professional manual (although no mention of Amstrad specifics)
⊞ Supports a colour graph plotter as an output device
⊟ You need CP/M expertise to get it installed and going
⊟ There is no way of joining points by a smoothed curve

NEXT MONTH

The guide continues next month with these categories: DATABASES, GRAPHICS, COMMUNICATIONS. These will be followed the month after by surveys of SPREADSHEETS, UTILITIES, and EDUCATIONAL software.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include new products – but if you would like to see a complete copy of the guide (bar the Accounts and Comms sections), it's in issue one (cost of back issues: £1.50).

Meanwhile if you are aware of any significant omissions or errors in the File as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

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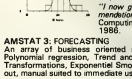

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(AMSTAT 1 v1.1 for the CPC still available at old price)

(27)

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The interface, produced by Silicon Systems, comes with clear fitting instructions, but you will need to remove the back of your 8256 to do this.

We're offering Uniface either by itself for just £49.95 or together with a high-quality 80-track double-sided drive for £199.95. The latter package contains all you need for a complete upgrade, bar the mains plug for the drive. The drive will format discs to 720K, making it identical in operation to the 8512 second drive. And the price compares very favourably with other upgrades.

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Can you work out what do with a pile of junk mail? Can you learn to understand Vagan poetry? Can you show an obstinate door a sign of intelligence? A game to delight you for months.

WISHBRINGER

A stunningly atmospheric game in the Infocom fantasy tradition. The game starts with you, the village postman of Festeron, discovering that a cat belonging to the keeper of the Magicke Shoppe has been stolen. Your only help in solving what rapidly becomes a dark mystery is Wishbringer, a small stone bestowing seven special powers.

Although this program is intended to appeal to relatively inexperienced adventurers, it also has masses to offer the expert.

SPELLBREAKER

This is a sequel to Wishbringer and is described by Infocom as "expert level" which for you and me means "nigh impossible"! As well as the challenge of tackling wicked puzzles, you have the potential for casting various spells, a power you'll need if you're to survive.

BALLYHOO

A brilliantly original scenario in this one. It's set in a strange, rather seedy circus where the owner's daughter has been kidnapped. You have to discover whodunnit, a quest that will have you stuck in the lion's cage, trying to climb over the Fat Lady and holding a bizarre conversation with a midget.

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These programs (all superb!) would normally cost £19.95 + VAT (that's £22.95). By buying them from us you save £6! Just tick the titles you require on the order form.

BATMAN

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Batman is superb – the game's challenge, sophistication and sheer high quality belies its comic strip roots. Until you've seen it onscreen you simply won't believe what your PCW is capable of graphically.

The idea is to explore a vast network of rooms in search of various objects required to assemble your Batmobile. But numerous devious puzzles and opponents are put in your way, so much so that you hardly have time to admire the astounding animation and detailed background scenery.

It may not be useful, but it's certainly great fun and a bargain even at the normal asking price.

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COMPUTER SCRABBLE
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Writers, wordsmiths, LocoScript users all, this is the program you've been waiting for.

The much-loved, much-played word game has arrived on the PCW courtesy of Leisure Genius, and presents you with a new challenge: Can you beat your word-processor at word processing?

Be warned, the program, backed up by a huge built-in vocabulary, plays a very mean game. It knows all the rules and will use every trick in the book to build up mind-boggling scores.

The full Scrabble board is displayed on screen with all the squares in their usual places. More than one player can take on the computer, and you can set the program's level from super-fast to super-smart. There are plenty of other options, including the facility to watch the program 'think'.

If you bought your PCW for word processing, what are you waiting for?

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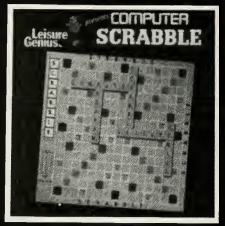

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If you've seen the review in this issue you probably won't need further persuasion over the quality of this program. It's a superb buy both as an impressively life-like simulator and a challenging piece of entertainment.

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A gorgeous little program, this. It'll refresh the parts of your PCW printer other software cannot reach.

With FontGem from Gemini, EIGHT new, radically different typefaces become available for your machine. And each of them has its own distinctive, professional appeal.

If you want your printed output to look a bit different from all the other LocoScripted letters around, FontGem is what you need. It's compatible both with LocoScript files and those produced by CP/M software. Once installed, you can just use your word-processor in the normal way – but with exciting results.

Great value at its full recommended retail price of £19.95 – at just £16.95 it's another remarkable 8000 Plus bargain.

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This is Olde English font
This is Stencil font

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Using the same chip that's fitted to the Amstrad CPC computers, it offers the power of producing all manner of sound effects, with full control of tone, volume and 'envelope shape' on all three channels.

Also built in is a standard joystick port – its programmable interface can emulate any set of five keys used in a game, say, for left, right, up, down and fire. The unit itself plugs straight into your PCW expansion port.

Sounds good? It will.

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LocoScript wallchart, Type in Wordcounter program, Four Accounts Packages compared, 8256 upgrade options, Mail-mergers compared, Good Software guide all sections bar Comms and Accounts, numerous TipOffs.

ISSUE 2

Bumper TipOffs issue, Phone Call Calculator listing, Software reviews: education, job costing, six payroll packages, Ansibleindex, Tomahawk, tutorials on LocoScript headers/footers and on customising keys, reviews of books and comms packages.

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POSTSCRIPT

The postbag picked, perused and published with timorous comments from the ed.

We thought last month's avalanche of mail was a fluke, but we've been digging ourselves out again this month. Reaction continues to be favourable (something to do with binning the protests). But I joke, we do enjoy reading your comments on any aspect of the 8000, this magazine or the micro industry in general.

Please join the contributors to these pages by giving us your opinions, or try us out with any questions or problems you have - so long as they might be of interest to others we'll do our best to print answers in the magazine (but no personal replies, I'm afraid). The address to write to is:
PostScript, 8000 Plus, The Old Barn, Somerton, Somerset TA11 SAH

Closing the gap

Firstly may I thank you for your excellent magazine. A veritable elixir in the cultural oasis on the shelves of Mr Patel's little newsagent shop.

I can think of only one annoying thing to mention about LocoScript at the moment and this may not even be the software's fault but could easily be my own stupidity. It lies with the printer's option menu. When called, it kindly offers you pre-set values for form length (70), gap length (3), and high quality print on single sheet stationery. If, as I do, you use continuous stationery and select this on the menu the values are instantly changed for you; form length now becomes 66 and gap length 5. Which would be a very nice time saving feature, if only it worked properly. For hours I tried getting it to print out a document, only to find my precious words slowly getting further and further away from the top of the page. In desperation I returned to the menu and reselected continuous stationery, but this time reset the form length and gap value back to their original single sheet values. And, to my amazement it worked.

Is this right? Or am I being incredibly dense? Whatever the reason, I would appreciate some sympathy.

Next, just a brief word about the manual:

Aaaaarrrrghhh!!!

Finally, I am thinking of buying a spollingg chicker, but don't want to have to leave LocoScript to use it. Is there one on the market?

I eagerly await the next issue of 8000 Plus.

Kevin Hardy
London W12

It's possible your paper feeding problem is due to the form length you've set in your document. The values in the printer option menu and in the document have to match.

I hope this month's review of spelling checkers is of use to you.

Disc-based data

Congratulations on a very good magazine. As a complete newcomer to the world of computers I'm fed up struggling through magazines, of which there are more than enough, in order to find one or two features which refer to the PCW 8256.

Is there any chance you might produce a simple programme listing which would enable me to catalogue my collection of about 400 L.P.s and access it? Or do I have to buy a database?

Felix Davies
Darlington, Co Durham

No and Yes.

Bookkeeping Book Sales

You might be able to advise whether the Scratchpad could assist me to keep track of book sales. At present, I have been using the PCW8256 for about 10 months as a Word Processor and it has assisted me in connection with by duties as Secretary of a small group.

One of our ways of raising money is to sell a number of books and it would be very useful if I could place these records on a computer file. I need something that will incorporate the following headings:

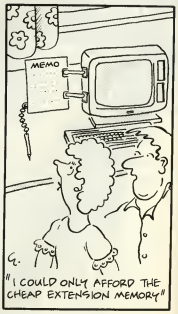
1. Title
2. Unit Sale Price
3. Unit Purchase Price
4. No Purchased
5. No. Sold
6. Stock
7. Value of Sales
8. Value of Stock

The idea would be that having input factors 1-3, by amending 4-6 during the course of the year, it would be possible to obtain figures 6 & 7.

At this stage I do not require full accounting on the computer as this is done by the Treasurer, who is quite happy to use books for his limited accounts. However, I am not sure whether my requirements can be met by Spreadsheet Programme or whether I require a more sophisticated Accounts Programme.

Keith Potter
Bexleyheath, Kent

You don't mention how many books you may stock at any time, but assuming the number is not too big you could easily store them in a spreadsheet such as ScratchPad. Cheaper alternatives that you could also consider Supercalc 2 and Pocket CalcStar.



Indexing LocoScript

Would I be correct in thinking that if I have created a document in LocoScript then I cannot utilise another word processor programme to work on that document? Similarly applying an indexing programme?

Hoping you can furnish some suggestions; 8000 Plus is definitely the best magazine about if what you want is serious applications to Amstrad and the fiddly-twiddly bits thrown in.

Nicholas Riall
Farnham, Surrey

If you have version 1.0 of Locoscript then you can't load text files from it into another word processor. From version 1.2 on, however, you can produce an ASCII file (one which doesn't use Locoscript's 'codings'). This type of file can then be read into most other word processors for further work.

Indexing can be done with a 'straight' Locoscript file, using Ansibleindex, reviewed in last month's 8000 Plus.

In search of the big record

I am attempting to set up a small spare-time business that will involve a great deal of lengthy questionnaire-processing. Particularly important will be the number of fields possible (probably between sixty and seventy) and the number of characters allowed in each record. I realise that it is always advisable to restrict each individual field's length as much as possible, but the detail I am asking for on each questionnaire is quite extensive. Any suggestions?

Andy Hiseman
Herne Bay, Kent

There are several databases which can handle the size of record you're considering, including Condor, from Caxton Software, and Delta, available from NewStar. Condor, for instance, can handle up to 127 fields per record, and each record can be up to 1024 characters long.

Drawing conclusions

I like the magazine. If future issues contain as high a proportion of pertinent and practical information then you have at least one steady subscriber.

I have an 8256 and am looking for a package to handle two dimension engineering drawing, output to a plotter. Something on the lines of the RoboStick package on the Apple. Ordinary graphics packages, even with line lock facilities and symbol storage , are adequate.

Is there anything on the market, or have you advance news of something to come?

L Weatherill
Wincanton, Somerset

There are very few technical drawing packages available for the PCW, or indeed any CP/M micro, but one you might like to consider is Microdraft from Timatic Systems.

Paperweights

Thank you so much for producing a really good magazine for non-computer literate wallies, like myself; your 8000 Plus is the first computer magazine that I have read cover to cover and understood.

I bought a 'Joyce' about a year ago, as an alternative to a portable typewriter, and apart from a few crashes whilst printing I've had very few problems, bar 2 major ones.

Both of these concern the printer. Firstly when using any paper heavier than about 90 grammes it was necessary for me to keep my finger on the bail bar to stop the paper from slipping, this being a very annoying task when printing a long official document and also halving my typing speed from 2 to 1 fingers! The second problem is that I have been totally unable to get a screen dump no matter what combination of keys I pressed, including ALT+P. I assume that this is a hardware problem and I have not been able to check it as my 'Joyce' is still in Ethiopia awaiting my return later this month (this having been typed on a DEC Rainbow using Wordstar - horrible!)

David Brown
Great Missenden, Bucks

Your first problem is really a function of the printer. It's not really designed for heavyweight paper (most paper sold for listings is around 70gsm). The second problem is easily solved. The keys you press for a screen dump are EXTRA + PTR.

Letters but not envelopes

Many congratulations for the excellent new magazine. Something of this calibre was desperately needed for people like me who have recently succumbed to the charm of the PCW 8256. In general, I must admit that I am very pleased with Joyce's performance and probably like many others had never even touched a computer before. However, I find myself thrown in the deep end in order to discover its looming and mammoth capabilities.

One point you may notice from this letter is that I can't fit my favourite envelopes into the printer to type on them and have to resort to using my old manual portable, which sees a bit daft. Is there anything to be done or is it just hard luck on my part?

Paul A Ryan
Norwich

You could use selfadhesive labels, which you can buy on rolls complete with tractor-feed perforations. Or a ball-point.

"ACCORDING TO THE COMPUTER WE HAVEN'T PAID OUR ELECTRICITY BILL"

A good deal

I have just finished looking through your new magazine and I have already benefited from one of the articles in it. Within half an hour of reading the article by Ben Taylor I had my CAMSOFT PSPN Accounting system Autoload.

I am a partner in a garage repair business, and as well as fixing cars by day I also have to do the "paper work" with my wife's help in the evening. I bought my PCW 8256 to help with letter writing, producing statements etc. However it soon occurred to me that with all the accounting software on the market, that maybe I could use the PCW for doing the accounts . I could write a book about the trials and tribulations of finding the right software and hardware and then getting it set up and running.

It never occured to me to go to a computer specialist. (I thought they would laugh) until I saw an advert for a new company who specialised in the business use of the Amstrad.

Aztec Comsoft of Reading was my saviour. Any firm that lets a dirty scruffy motor mechanic loose on one of their PCW's in their posh showrooms to try different accounting packages must be keen.

So in the end, the initial disappointment of not buying an 8512 turned to pleasure when I tried and then bought a BOX 5 " 750K Disc Drive (The money I've saved on discs!). I now have an excellent accounting computing system with extra memory, (installed by myself. To avoid static electricity I stripped to my underclothes and earthed myself to an electric iron), 5 " drive, a flexible accounts package that can deal with the oddity of Zero Vat rate on MOT Tests, and a happy wife whose work is cut in half.

David Hearn
Reading

My wife would probably be happier, too, if I spent more time in my underclothes and strapped to an electric iron!

The tab stops here

I have spent hours trying to set Tab Stops, permutating every reasonable variation of the command on page 127 of the CP/M manual for the PCW 8256, all to little effect. I would like to use it in a Printer Definition File to be executed by the SETLST command. I assume that the command should be entered as †'ESC''D'†'5'†'10'†'15'†'0' to set 3 tab stops at intervals of 5 columns, and that the TAB key should execute the tabs in CP/M or Basic and that LPRINT CHR$(9) should do the trick in a Basic Program.

I can set tabs in Locoscript but so far I must admit defeat in CP/M. Please martial your boffins on this one.

Rex Hibbard
Tunbridge Wells, Kent

The commands you give will work in CP/M, but Mallard BASIC traps tabs and expands them to the equivalent number of space characters. If you want to use your technique in BASIC, you must give the command OPTION NOT TAB first.

A PCW for the handicapped

I work as adviser on electronic aids to most organisations concerned with disability. Essentially it is working at the very forefront of technology and disability by applying electronic aids to improve independence and quality of life.

There is no doubt that computer

technology, especially, can help disabled people enjoy life more – even contribute – in a variety of ways. For some years I have been recommending – and arranging funding for – equipment like Apple, Acorn, Research Machine, IBM and others – but head and shoulders above all of these, certainly in terms of value for money, is the Amstrad PCW 8256 and especially, PCW 8512. I have arranged funding for many of these severely disabled people and organisations who work with them.

Roger Jefcoate
Mursley, Bucks

The 8000s are certainly good value for money, but they haven't really been exploited as aids to the disabled yet. Unless you know differently.....

A review reviewed

I refer to Simon Williams rather damning remarks in 'Tome Sweet Tome' (November issue) on my work in 'A Practical Reference Guide to Word Processing on the Amstrad PCW 8256 and PCW 8512'.

With regard to the title, cover and paper, these are entirely up to the publisher and the idea of Locoscripting the text has been extremely well received. For my part, however, I consider that Mr Williams' remarks have been backed up by quoting out of context and even worse, by misquoting. He is entitled to his own opinions but he should be honest in what is put into print.

(i) To ensure that nobody takes the ideas mentioned in his third paragraph as a hard and fast rule as he does, the book mentions that everybody's requirements are different and also that mine is an overall guess.

(ii) The words 'for some time' have been omitted. These were added to indicate clearly that the suggestions for home use are only a starting point. Newcomers to word processing need guidance so that they do not buy far too many discs, some of which will never be used. In spite of his cynical remarks, I still consider my remarks to be reasonable. (Note that the book is written mainly as an introduction for non-computer people and therefore it is open to question that it should be reviewed in a professional computer magazine at all).

(iii) For business I am quoted as saying that a *few* more discs will be required. In fact the word used is *several*. Such a change deliberately creates a wrong impression.

Finally I am rather puzzled as to why he is so bemused on the statement published in his fourth paragraph. I have put this to a few people and *they* all seem to understand it!

F.A.Wilson
London NW9

Mr Wilson seems to have taken this review as a personal attack. In fact, like any review in 8000 Plus (which is not just for 'professional' readers), it is addressed at a particular product. A book is part text, part presentation, and the comments on title and paper fall squarely into the latter category.

Having re-read the review, I can find no hard and fast rules in it anywhere. I still differ with Mr Wilson on the number of discs a beginner will require, but this was only an example in a necessarily short review.

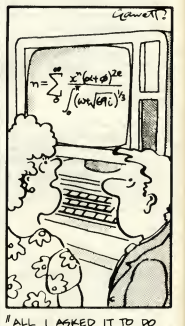
The only quotation in the review is an example of the style of writing in the book. If, as Mr Wilson maintains, the book is intended for the beginner, then this reinforces my initial feeling that the language is too technical. If a few people (or should that be several!) understand it, so be it.

Wordcount timings

Soon after buying the first issue, we set to work to list Wordcount, and were pleased to find that it was written with the complete novice in mind. It was the first programme we had tried to list, indeed it was the first time that we had ever used the CP/M disc, so we expected to have to rewrite the programme several times before it was perfect. We were not disappointed! It wasn't until after nearly four hours work that my husband suddenly hit on the one mistake we were making - confusion of 1 and 1 in the program listing. Once discovered, then all was plain sailing.

Janet Whithead
Portsmouth

We've had a lot of letters and phone calls about this. We'll make sure this confusion doesn't arise again. Sorry!



"ALL I ASKED IT TO DO WAS COUNT THE WORDS..."

LQ v NLQ

In reviewing the Superwriter wordprocessing program, you mention that in installing the program you are asked what printer you are using. Until now, I was under

Vicar and Expert of this Parish

I bought my Amstrad about four months ago and struggled nightly to get to grips with Locoscript. I think that I succeeded, so much so I was able to arrange a "Training Day" on LocoScript for the eight people who also have the machine and all live in our village.

Everyone, unbelievably, turned up

"LOOKS LIKE EVEN THE PRINTER'S GONE TO SLEEP"

9.00am, with their machines, four in all. Extension leads and tables had on time at the Vicarage on Monday at been supplied, together with copies of LocoScript. Over a cup of coffee and introductions the machines were set up and loaded. We were ready, with the technology, to go where no man in Bollington had been before.

The way forward was to study at length the 'f' numbers starting with the Disc Management Screen. Then the Editing Text Screen and ending with the Printer Control State. Our grateful thanks must go to that very helpful and clear publication by Clarity Guides.

Time did not allow for elaborate preparations, but I did have time to make a list of all the 'f' numbers with no more than two lines to explain each one of them. Each machine had a list for reference and with the added notes made during the day, would be used later as a reminder. I have now produced a reverse index: f1 = change disc, and in alphabetical order: Change disc = f1 .

There is no doubt that, at our stage, problems with LocoScript are just little learning experiences. Our first one arrived when I realised that as the 'teacher' I was the only onewithout a machine and I needed a screen to look at. At last I found the solution using 'Screen dump' - Press EXTRA then press PTR. I now had copies of all that was on the screen as we moved from one state to the other.

It is not hard to imagine that all of us were at different stages. We arrived at a solution. At any time we would stop for further explanation or give time to allow members to add their own bits of information or experience to the others. This made us suddenly realise that whatever you want to do with Locoscript there are at least three ways of doing it. The choice is purely preferential. Bold, for example, can be found by pressing f3 and then the set key, OR the set key then the grid key OR just typing it in.

Lunch was provided by my wife, God bless her, we had - home made Soup - Ploughman's lunch - Apple pie and Custard - Coffee. Now this is important, we were all surprised how hungry we were and enjoyed the added luxury of a carton of red wine kindly supplied by one of our members. Lunch was in the dining room and after about three quarters of an hour we were all ready and willing to return to our machines.

The afternoon went well and with an air of confidence, or was it the wine?

We finished the numbers (including f7) and started to play with EXCH and FIND. We ended by producing a document I had prepared earlier. Typing was not necessary as all the information cold be found in either Blocks or Phrases. The document was produced and all present passed with flying colours.

The last half hour was used to discuss software and to arrange another most enjoyable day. Yes it was good to talk LocoScript out of one's system and have friends speaking to you again and to realise that not everyone likes talking about computers.

John Warburton
Bollington, Macclesfield

It reads like a fascinating day and I envy you the lunch.

the impression that I was using an Epson FX-85 or the rough equivalent.

You say in the article, however, that the printer in question is an Epson LQ-1500. Now is it me who is the wally, not able to recognise a touch of gentle sarcasm, or do you really mean this? If you do, then surely a prospective printer buyer should buy a PCW8256 outfit and get a monitor, disc drive, word-processing software and computer (as well as making a saving of about £800 on the original cost of the LQ-1500), all bundled together with the printer.

Charles Price
Cornwall

Sorry if you were confused. What we intended to convey was that you should pick the LQ-1500 option from the SuperWriter print menu. You are right in saying that the PCW printer is a rough equivalent for the FX-85 (although the mechanism is actually made by Seikosha).

Turtle Dumps

I write to you on behalf of myself and a teacher at my younger son's school.

How do you obtain screen dumps on the printer of drawings made using the Logo disc? If you could fully explain this in your reply, or in a future issue of the magazine, you will have two grateful users.

Richard Hugo
Cumbria

You can obtain a screen dump of a Logo drawing by holding down [EXTRA] and pressing [PTR]. This technique works in LocoScript and most CP/M programs as well. There is no documented way of obtaining a print out using a Logo command, though.

Kitchen Calculations

I am looking for a programme to assist me to prepare kitchen quotations quicker and more accurately.

Ideally I would like to input the kitchen group i.e. price range and then just input the catalogue number. Hopefully, the computer would then record the unit description, price, running total etc. I am not concerned about graphics.

Do I try and find a ready made programme, or buy a database and try and produce what I want myself, or pay someone to write a programme up for me?

A Mackmurdie
Ascot

The kind of problem you describe seems ideally suited to a spreadsheet. Have a look at SuperCalc 2, The Cracker or CalcStar.

Program Plus

My own interest in the PCW is its use as a low cost home computer that I can use for running programs I write as part of my degree study and course work (already-many useful programs using NEVADA COBOL, believe it or not!). So many magazines write for software users, teachers, games players and the like, and ignore programmers. So lets see included regularly reviews of the bewildering variety of language compilers (Pascal, COBOL, Fortran, etc.).

Also, on the same theme, listings of useful programs written in these languages (esp. Pascal) would be helpful and a welcome relief from the seemingly endless pages of BASIC listings, which most experienced programmers seen to agree is an awful language anyway.

I await next months edition in the hope that it meets the standards set by the first.

J R Walker
Sheffield

We try to cover the complete spectrum of PCW use in 8000 Plus, and we're planning some extra features on programming in the coming months. From the letters we've received, though, it is still a minority interest among our readers.

College Credits

I am a second year computer studies student at Napier College in Edinburgh. At college we use Prime 9950 which come the end of term gets overrun by assignments. In order to avoid the usual chaos and midnight sit-ins I bought a computer that I could do my documentation on, and at the same time run languages ie Pascal, Fortran, Cobol.

The surprising thing was (as students not having a lot of money) that it only cost me £570.00 including languages. The only criticism I have of the PCW8256 is "not enough of the ferrite stuff". So I bought an upgrade for £25.00. The only thing I need now is a larger capacity disk drive, which can wait till I can afford it. I don't know about you but I think its amazing.

David A Palmer
Livingston

Yep, me too.

BASIC Booster?

As Mallard Basic is, to all intents and purposes, compatable with Microsoft's MBasic, will BASCOM (the compiler for MBasic) work with Mallard Basic? If not is there a Compiler for Mallard?

W J Rann
Wiltshire

Although Mallard BASIC is compatible with the commands in Microsoft BASIC, the internal structure of the two languages is totally different and the BASCOM compiler won't look at a Mallard program. We don't know of any compiler on the market which will compile a Mallard BASIC program.

BASIC shortfall

When running BASIC on the PCW8256, is there any way of getting more than 32K out of it?

C Kilburn
Middlesex

The Mallard BASIC language and any programs you write in it have to sit in the same 61K of memory. Since the language itself is about 30K long, this leaves just under 32K for your programs.

Disc Disaster

On the subject of learning, Dr. Ben Taylor's article in Oct. on "Avoiding Slipped Discs" came just to late for me. I've no excuse, I had not made a back-up and, because of that, I am sitting on a CF2 DD disc with two months of back letters hiding in it. It will neither load in Locoscript nor copy in CPM DISCKIT. All I get is....

```
DISC ERROR IN DRIVE B . . .
TRACK 1-SECTOR #03
MISSING ADDRESS MARK-
```

This error is within the directory.

Must I give up and assume that it is gone for ever, and if so, is it safe to reuse the disk on new material, or is there now a latent fault awaiting to raise it's calamitous head?

David H McGettigan
Glasgow

We don't know of a disc utility which will recover data from a disc which has a corrupted directory, as yours has. You should be safe to reuse the disc, however. If you're worried about it, reformat the disc, copy the contents of another disc onto it and verify the copy, all using DISCKIT. If the disc verifies correctly, you should have no further problems.

Writing Czechs

My profession is a TV Editor in Educational Dept. of Czechoslovak TV. In this capicty I am in charge of next to everything what concerns computers and similar toys alike.

There is a special program of 30 minutes every week where I am something as a host of the show. By now we are even preparing an educational serial of 20 parts, 30 minutes each. Serial will deal with informatics and its education in our secondary schools.

I got to London just two weeks ago. Not only that I've bought for myself this beautiful PCW8256 but I visited an Amstrad Show as well. There I held many useful talks, among them with a New Star, so my name appeared in their mailing list and that's how I know of your existence.

As you may have noticed, the user's manual for PCW claims that you can write with it in any European alphabet. Considering countries like Yugoslavia, Poland, Bulgaria or Czechoslavakia as European you can't then take Amstrad's claim too literaly. No wonder and certainly no offence. So I asked Amstrad in registered mail for advice or eventually for possible addresses within the Locoscript so we can do these changes which are absolutely vital for using Amstrad around here. Surprisingly enough there was no reply at all.

Our hardware experts here are very sure they can arrange for some additional changes via new ROM which can hold our special characters. Just for your orientation, there is quite a few of them - e,r,t,s,z,c,n with a 'hook' and some others with accents.

Essence of my request is any Service Manual for PCW which includes inside layout of the computer with technical data. I am not aware whether such request is infringing a copyright or even patent because I can't think of other reason why Amstrad did not even reply.

So please, let me know your point of view and, if possible, some hints how we should handle the situation here with the aim of fair evaluation of PCW and also fair advice to possible customers around here.

Stefan Rybar
Prague
Czechoslovakia

Seems unlike Amstrad to miss the opportunity of possible sales. There should be no reason why special characters can't be built up by typing the accent you require first, followed by the letter to which you want it added. See pages 10 and 52 in the LocoScript manual.

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